

Challenge

THE MAGAZINE OF ECONOMIC AFFAIRS

CONTENTS
Vol. 8, No. 7
APRIL, 1960

Published by Institute of Economic Affairs, New York University

*Haig Babian,
Executive Director and Editor*

Senior Editor: Martin Kessler

Production Editor: Ted Berardicelli

Associate Editor: Gerald R. Rosen

Editorial Assistants: AnnaBella Merendino; Susan Turner; Nell Salm; Grace Shimell

Business and Circulation Staff: Arline Feigen, Mgr.; Esta Weiner; Linda Abbott

Chairman, Policy Board: Harold O. Voorhies

Articles

THE CULT OF NOVELTY.....	<i>Robert Lekachman</i>	7
GOALS OF THE EMPLOYMENT ACT—PART 2.....	<i>Edwin G. Nourse</i>	12
THE ECONOMICS OF INFORMATION.....	<i>Robert C. Sorensen</i>	18
LEISURE IN THE SOVIET UNION.....	<i>Lawrence Whetten</i>	24
NIGERIA PREPARES FOR INDEPENDENCE.....	<i>George H. T. Kimble</i>	38
DEPRECIATION BY DEFAULT.....	<i>William T. Hogan, S.J.</i>	46
THE COMMISSAR AND THE EDITOR.....	<i>Lowell B. Mason</i>	51
BALANCED BUDGET: DEFENSE AGAINST INFLATION?.....	<i>William S. Vickrey</i>	57
WHERE IS SOCIAL SECURITY HEADED?.....	<i>The Editors</i>	67
PLANNING CITIES FOR A FREE SOCIETY.....	<i>Brent Friedlander</i>	72

Interview

RICHARD COURANT.....	29
<i>Professor Emeritus, Dept. of Mathematics, New York University</i>	

Departments

A PERSONAL NOTE.....	2
LETTERS TO THE EDITOR.....	3
CHALLENGE NOTES.....	5
ECONOMICS IN ACTION.....	44
THE PERMANENT FRONTIER.....	62
EVERYDAY ECONOMICS.....	76
READING REPORT.....	78
CHALLENGE QUIZ.....	79
DEPT. OF BETTER MOUSETRAPS.....	80

from the editor

a personal note

■ IT IS becoming increasingly difficult in this modern world to find refuge in our private dreams of paradise. The realities of the times thrust themselves into the common man's *Sans Souci*.

Consider the case of Hawaii, the closest thing to an island paradise that an American citizen can hope to reach. Perhaps it is mere coincidence, but Hawaii, so soon after her admission into the union, has announced a critical shortage of flowers. No longer will the tired visitor be greeted with that symbolic escape charm—the lei.

There is more to this than meets the eye—more than the mere fact that the Honolulu Chamber of Commerce is appalled by the rising cost of garlands for tourists who are going to come in increasing numbers, garlands or no garlands.

What this means is that the world is getting too crowded for comfort. Even the things that dreams are made of are falling beneath the weight of man's numbers. Tahiti has become the playground of the South Pacific. The exotic isle of Bali is in revolutionary ferment.

Everywhere nature is being crowded by the affairs of men. Talk about the imbalance in nature's creatures induced by man's science! The greatest imbalance comes of the fact that so few of us are fit to live close to our fellow men.

What can or should be done about

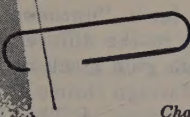
this I do not know. All I know is that I was brought up to respect the privacy of others even while jealously guarding my own. This is patently impossible today for mind and body, as well. The public weal transcends the private will, and the atmosphere of the public bath pervades all things.

We hear much these days about the population explosion. And a destructive explosion it is for many parts of the world. We in the United States have had our share of it—a rate of increase greater than that of India—though its effects have been more subtle here than elsewhere: a shortage of flowers in Hawaii, for example.

I fear this explosion will go on unchecked as long as a world consensus on how to deal with the problem is lacking. Democratic India has chosen to exercise the most extreme forms of control. The dictatorship of China has decided to wait it out until the Chinese population reaches 800 million. Who knows what new premium on numbers the East-West struggle will bring.

There is disagreement on our own shores as well. The majority of our resource specialists would be considerably happier if they could dismiss from their minds the problems of population pressure. But our marketing specialists rub their hands with undisguised glee as they count the newborn among their customers of the future.

Thus, I fear I must bid adieu to a world in which there was once room to be alone. There is no choice now but to learn to live with one another. Failing that, there is the insane asylum, of course. But what kind of a sanctuary would that be, with no one left outside to escape from.—H. B.



letters TO THE EDITOR

Challenge invites your comments. Address letters to
CHALLENGE, 475 Fifth Avenue, New York 17, N. Y.

Commonplace portrayal

•I am bothered by CHALLENGE's commonplace portrayal of the economic affairs of this country. Nowhere is there any mention of the tangled mess of government finances which is heading to a grand slam bust in the foreseeable future. It amazes me that intelligent persons treat the very existence of our country with disdain. We are on the road to serfdom, and no one in a position to influence public opinion has the courage to say so.

I wonder why there is so little mentioned in print about the economic mess we inherited from the Roosevelt regime and why the representatives we pay to look out for our interests are showing themselves to be traitors to things our forefathers brought into being at the cost of considerable personal sacrifice.

R. BLAGDEN

East Hampton, Conn.

Price hike

•The February issue of CHALLENGE has numerous articles about the problems arising from the overpriced dollar. Instead of raising interest rates and cutting foreign aid, why don't we raise the price of gold?

When we raised it from \$21 an ounce to \$35 an ounce, the results weighed heavily on the favorable side. Since we raised the price to \$35 an ounce, commodity prices in terms of dollars have doubled or tripled. If we now raised the price to \$70 an ounce, we would simply be restoring the ratio between the price of gold and the price of commodities to earlier levels. Then we would be free to lower interest rates which would, in turn, stimulate industrial production and expansion.

S. E. HARRINGTON

Lyons, Wis.

Cutting costs

•Big Government indeed needs constant public scrutiny. [*A Personal Note*, January, 1960.] Since 1954 the budget of the Dept. of Health, Education and Welfare has rocketed from \$2 billion to almost \$3.5 billion. TVA costs about \$37 million a year; the U.S. Information Service gets about \$107 million; the Dept. of Agriculture uses almost \$5 billion (our stockpile of subsidized farm products is over \$9 billion now!). More than 700 federal agencies now compete with private enterprise; if these were sold to private individuals

or corporations, this would cut the cost of government in half. Also, we have 2,382,237 civil service employees. This could be cut 75 per cent and the work could still be done right.

FRANK P. STELLING

Oakland, Calif.

Health and welfare

•Your *Interview* with Jacques May [February, 1960] seems to have been timed to appear simultaneously with several newspaper articles which warned that enrollment in medical schools is not increasing rapidly enough to provide for our future needs. Since, as Dr. May points out, new diseases and new needs crop up as old ones are conquered, we are waging a *permanent* battle with disease. However, it was rather distressing to read Dr. May's statements about medical care in underdeveloped countries. If it is possible to arrest most known communicable diseases, it seems callous to say that we should not hurry and do it since that would lead to overpopulation.

G. W. HILTON

Hollis, N.Y.

Research for obsolescence?

•Gerald Steibel's article ["How Can the U.S. Compete?", February, 1960] made some sound suggestions as to how increased research can solve many of our export problems. However, the author also mentions that in 1958 industry consumed 79 per cent of research investment. He fails to mention that industry devotes an inordinate amount of research to the "problems" of planned obsolescence of products on the domestic market. This type of research is working *against* industry's interests in the foreign market and may be doing more harm on the national scene than

we thought. (Detroit was shocked by the popularity of imports.)

WILLIAM B. CRANTON

Brockton, Mass.

Gold stock problem

•Use of the term "uncommitted" when referring to the difference between *total* U.S. gold stock of \$19.5 billion and *net* foreign claims of \$15.3 billion is misleading. ["The Problem," February, 1960.] The inference is that the U.S. has "uncommitted" gold of \$4.2 billion—*over and above* the gold stock necessarily used as a legal reserve by the Federal Reserve.

Actually, of our *total* gold stock of \$19.5 billion, \$12 billion is the required (25 per cent) reserve against the Federal Reserve System's deposit and note liabilities. The balance of the U.S. gold stock, some \$7.5 billion, is all that can be offset against the net foreign claims—unless, for example, the 25 per cent reserve requirement is reduced or eliminated. Thus, we do not have the approximate \$4 billion in "uncommitted" gold which the graph [page 10, February, 1960] misleadingly indicates; instead, we have "overcommitted" our gold stock by some \$7.8 billion.

RICHARD D. KARFUNKLE

Brooklyn, N.Y.

Reader Karfunkle is right: the use of the word "uncommitted" is misleading. However, it is necessary to bear in mind that according to criteria established by the International Monetary Fund, a country's international reserves are considered in terms of its total holding of gold and foreign exchange. If all foreign claims became due at the same time, we should, indeed, be "overcommitted." But the practical possibility of this happening is remote.—Ed.



Challenge Notes

"Made in U.S.A."; competition; spending for welfare; sense and sensibility

■ AS PART OF their campaign to stem the flood of foreign-made imports, manufacturers are appealing to consumer patriotism. "Made in U.S.A." labels are appearing on all sorts of products where they never appeared before.

But when is a product American-made? Some of the firms most concerned about "foreign competition" use components manufactured overseas. Is a bicycle built in the U.S. with one-third foreign parts "American-made?" The Federal Trade Commission does not think so and has forbidden the use of "U.S.-made" labels in such cases. But what about a product made with raw materials extracted and processed by foreign labor and capital? Is such a product "made in the U.S.A.?" Where do we draw the line?

This entire business of national labeling as a selling device is becoming increasingly ridiculous as the trend toward international division of labor becomes more pro-

nounced—at least in the West.

Penalizing a manufacturer who makes intelligent economies enabling him to provide the consumer with a better buy is a dubious way of fighting foreign competition.

In the final analysis, consumer's choice will be based on value, not patriotism. He will buy U.S. products when—and only when—they offer him more for less. And he won't ask if what he is buying is 100 per cent American or not.

Kinds of competition

Businessmen have become painfully aware that President Eisenhower's so-called "business" Administration has initiated more antitrust actions than its immediate predecessors. Last year an all-time record of 10 law suits were brought under Section 7 of the Clayton Act of 1914, which prohibits mergers tending "substantially to lessen" competition or create a monopoly.

There is surely nothing incon-

sistent in an Administration dedicated to preserving and strengthening private enterprise doing all it can to arrest monopolistic tendencies. If ever the electorate were to be faced with the *exclusive* alternative of private monopoly or government control, it would undoubtedly choose the latter.

The real question is whether antitrust action, which tries to prevent the accrual of any kind of market power, is the best way of encouraging competition. Recently, for example, the Justice Department claimed (and the courts agreed) that the merger of a shoe manufacturer with a retail outlet violated the Clayton Act—even though the merged firm would control only five per cent of the nation's shoe production and one per cent of its shoe sales. The proposed merger, reasoned the court, reflected a trend toward concentration in the shoe industry that should be stopped.

The aim of the government in cases such as this is clearly not just to preserve competition, but to preserve a certain kind of market—the kind where there are so many producers that no single firm can influence price. But most of our major industrial markets today—automobiles, steel, chemicals, etc.—have a relatively small number of producers competing for the consumer's dollar.

What the trust busters some-

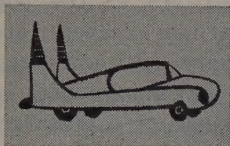
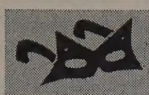
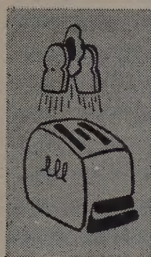
times forget is that in markets where there are few producers it is often more important to ensure that these few compete effectively than that they be rendered powerless to compete.

Spending for welfare

The current discussion about the need for reallocating our resources usually assumes that this must necessarily involve larger federal outlays. Obsolescent school and hospital facilities, and inadequate relief programs are (with considerable justice) blamed on government. The problem, as has been pointed out, goes deeper. A recent government report shows that in 1958 Americans spent a little more than two per cent of their disposable personal income for the welfare projects of private organizations—far less than we did before World War I. The problem is not more *government* spending for welfare, but more spending for welfare—government or private.

Sense and sensibility

This item would ordinarily belong in our *Dept. of Better Mouse-traps* were it not for the economic and social implications involved. A manufacturer recently placed on the market a thermometer tie clasp which enables the wearer to tell exactly how warm it is. The perfect gift for the friend whose senses have grown obsolete.—M. K.



THE *CULT* OF NOVELTY

by Robert Lekachman



Planned obsolescence by
consumer durable goods
manufacturers diverts resources
that are sorely needed elsewhere

■ THERE IS A striking paradox between the growth rate of U.S. industry, which is lagging behind that of Russia and Western Europe, and the manifest eagerness displayed by most of the rest of the world to copy American business methods.

At a time when U.S. gold reserves are diminishing, balance of trade is becoming adverse and American businessmen are meeting increasing competition from abroad in American specialties, our management consulting firms are thriving in Western Europe. Given the chance, they might enjoy just as much demand for their services behind the Iron Curtain. These firms are selling to their European clients American methods of per-

sonnel selection, inventory control, cost accounting, factory layout and sales distribution.

In Russia a wide array of consumer goods stems from American prototypes. In dissident Communist countries like Poland and Yugoslavia, our more esoteric techniques of mathematical analysis—linear programming and input-output economics—win respectful attention. And, although Russia has now begun to challenge us, Asia and Africa still send their bright sons to American colleges and universities to absorb the technical and business training upon which they hope to found their industrialization schemes.

Gold drains notwithstanding, it seems that, to much of the world,

the United States is the place to discover what it takes to industrialize and grow rich.

Why, then, don't we grow more rapidly ourselves? This question becomes all the more puzzling when we consider that the spirit of our society is still highly favorable to technical advance.

Our heroes include the great tinkers—the Fords and the Edisons. Though it is rare for an Englishman of the highest intellectual grade to attend an engineering school, in America, MIT and Cal Tech enjoy the highest possible public esteem. Even in the movies an indication of general values can be seen in the fact that scientists are as likely as ordinary businessmen to be cast as heroes.

Progress of technology

All of this is no more than a way of saying that in American society technology is interesting; it is the avocational preoccupation of many of our citizens. It is not astonishing, therefore, that Americans tend to enjoy consumer durables which reflect the progress of technology. According to the latest information—drawn from the fascinating section in the latest Economic Report of the President entitled “The Diffusion of Well-Being”—74 per cent of the population owns at least one automobile; almost one out of every six persons possesses two or more cars. Re-

frigerators are a universal possession in America; 90 per cent of American homes boast TV, three-quarters of the population have vacuum cleaners, and one out of every eight own air conditioners.

In each instance, something approaching a transformation in the pattern of distribution of these expensive items has occurred in the last decade. If the fruits of a society are the consumer goods it provides, then this society has been enjoying a veritable banquet.

However, these very successes help to create the aforementioned paradox. How is it that a society which venerates and exploits technology grows more slowly than its pressing responsibilities demand? The answer lies in the fact that technological innovation has, in large part, become our master rather than our servant.

In the American lexicon, the word “new” has always enjoyed high favor. From the days in the 18th century when Hector St. John de Crevecoeur pointed to the American as the new man freed from the shackles of the old world, we have visualized ourselves as the developers of new lands, new political concepts and new modes of living. This attitude has favored the inventor and the promoter. New products have had a better chance to win financial backers because monied men have felt a justified confidence that their compatriots

would try most things at least once. Attitudes like these encourage progress and growth.

But like most good things, the love of the new can go too far and discriminate too little. After all, genuine novelties are not very numerous. The really important innovation makes life more comfortable, more healthful or more enjoyable. The very best innovation enriches the experience of living as a human being. By diminishing farm drudgery, rural electrification made it possible for farmers to enter more fully into the lives and diversions of their fellow Americans. The automobile—long before it became a status symbol—enlarged choices of residence, rendered feasible constructive as well as entertaining holidays, and diminished the number of persons who lived in forced semi-isolation. The innovation of the paperbound book broadens the reading horizons of the man of moderate means.

Rewards of novelty

But in our nation the rewards of novelty are so huge and the hunger for it apparently so substantial that the new is equated with the good. Manufacturers are powerfully impelled to modify satisfactory old products, exaggerate the degree of change and market the result as an important innovation.

Sellers who don't enjoy the advantages of annual model changes

endeavor to emulate those who do. Planned obsolescence is a way of life in our industry today. The men's clothing industry, for example, has been endeavoring to persuade its customers that the Continental look has thrown the Ivy League look into the shade. Success has thus far been only moderate. It may be that men's clothing is one of the last homes of consumer rationality. But more frequent changes in electric razors, kitchen equipment, home furnishings and leisure items testify to the success of the effort elsewhere.

Of course, a rich society can stand a good deal of this puffery—although only at the cost of being somewhat less rich than it might be. It is possible even to derive a certain amount of innocent merriment out of the attempts of advertisers to find new and amusing ways to hawk their wares. A touch of fancy in a somber world is cause for gratitude rather than invective.

But overemphasis upon the new also encourages the misallocation of our resources. The automobile industry's annual model change consumes large amounts of capital in the process of altering the tools and the dies needed to produce the car's component parts. And during the season of change, plant shutdowns of varying length, which create seasonal unemployment problems, are another waste.

Too frequently the effort and

thought, the confusion and the dislocation, are in the service of minor changes in body shape, minute engine adaptations and trivial variations in interior trim. Once the change is complete, more resources are then expended on the persuasion of possible customers that the new product possesses outstanding merit. The exceedingly clever people who work in advertising concentrate for anxious hours and days upon the precise combination of illustration and verbal message which will best move the customer to buy.

In short, too many of the best trained and most talented members of our advanced society earn their excellent livings by persuading fellow citizens that they are really discontented with the serviceable commodities they already possess.

Yet sometimes it is all for naught. In 1957 and 1958 customers greeted with undisturbed languor the increasingly desperate appeals of importunate advertisers. New models piled up in forlorn splendor in dealers' showrooms. President Eisenhower added to the industry's gloom by unpleasant references to tail fins, and the period's recession soon acquired the label "the tail-fin recession." Plant cutbacks swiftly followed, and communities which live upon planned obsolescence, as Detroit does, discovered that the basis of their prosperity is indeed precarious.

The purpose of this sad story is not to bemoan the wasted resources involved in promoting campaigns to sell automobiles, although in truth they are sizable. The purpose is to point out the essential precariousness of such ventures. No doubt, in a free enterprise society entrepreneurs take risks, and some of them must fail—or there was no risk to begin with. *But when risks are associated with planned obsolescence, they are likely to be larger because they are addressed to the least-pressing consumer wants.*

Designed to satisfy

Frequently enough, the success of a risk depends upon the success with which sellers are able to create the very want which the product is designed to satisfy. Of course, even if the sellers are successful, the need which is gratified is scarcely worth the trouble.

The resources diverted to supporting planned obsolescence are not available for other uses which may promote higher rates of economic growth. They are not available for the pursuit of basic research, out of which technology springs.

Planned obsolescence, however, is only one consequence of the tendency to place undue emphasis upon the new. Another dangerous result of this tendency is the temptation to devalue the essential simply because it is familiar. A

prime illustration of this point is our treatment of education.

All available evidence tends to prove that rather few able young people pursue careers in education. By and large, primary and secondary school teaching is in the hands of the less gifted members of the community—many of whom are ill paid and worth little more than their wages. In part, this situation is caused by a general unwillingness to pay teachers the salaries truly commensurate with the functions they perform. The teachers themselves are also to blame insofar as they accept society's implied valuation of their services. Both parts of the answer lead back to an act of valuation on the part of the society, an act which implies a preference for new consumer goods over education, for new fashions over old values.

Much of the explanation of why we have done so badly in relation to the Russian educational effort is related to this act of valuation. Although Russian budgetary figures must be handled with caution, it is still probable that the Russians devote a far larger percentage of their much smaller national product to education than we do. The education itself is of a much more demanding variety—much heavier in its emphasis upon science and mathematics, and even more in literature and languages. It is the national educational system

which trains the scientists and technicians who understand and manage any industrial society.

But education is more than a means to higher growth rates. Education also develops the personality. Alfred Marshall, the great English economist, once made a useful distinction between wants and activities. Our wants we satisfy by largely passive consumption. But, argued Marshall, the truly happy person, fully matured in his tastes, engages himself in a wide variety of satisfying activities.

The danger implicit in our emphasis upon consumption and its infinite variation is in the development of wants and the neglect of activities. We only cheat ourselves by believing that happiness in life consists in virtuoso consumption rather than in exercises which strengthen the powers of mind and body. Our serious neglect of intellectual activities comments sharply upon the quality of our civilization. Education is only one category of neglect. Our public services and public amenities, in general, receive small fractions of the support our resources permit.

It is time we learn to distinguish more sharply between the "new" and the "good." It is time we cease to yearn after tinsel gods. The quest for the new, which began as a virtue of our civilization, has turned into an excess and threatens to become a destructive vice. ■

*a •
program •
for •*

*•
•
•
•*
**full employment
WITHOUT
inflation**

by Edwin G. Nourse

■ THE PASSAGE of the Employment Act in 1946 was aimed at the achievement of full employment without inflation. But the events of this past year have produced pointed evidence of trouble in the private sector of our economy. A 116-day strike in a basic industry like steel is bound to raise a troublesome question: Do concentrations of economic power in giant corporations and labor unions tend to thwart the aims of the Employment Act?

Both government and private agencies have gathered a mass of factual evidence relating to the problem, and have promoted its analysis by professional economists and business and union leaders. It is now imperative that this material be winnowed and a reasonable consensus be reached on

constructive solutions to the Big Business-Big Labor problem.

So far there seem to be two schools of thought regarding a solution to the problem. One approach is to turn the matter over to Big Government; the other is to find the means whereby management and labor can achieve peaceful co-existence without extensive government controls.

The proponents of the first approach despair of getting really full employment while avoiding inflation unless limits are set upon the present scope of free action in the private market. They would set up price and wage controls, and stiffen controls on interest rates and the regulation of credit.

This position seems to me to reflect undue impatience with the slow and difficult process of (1)

improving our market institutions in the light of larger experience and changing conditions, and (2) improving the performance of administrative agencies in the light of research and a broadening public viewpoint.

Those who favor price and wage controls look for quick and decisive results by resorting to centralized decision-making. But such short cuts lead seductively to a fully authoritarian system. Experience with OPA, OPS, AAA, and much of public utility regulation, furnishes ample evidence of the difficulties and dangers that inhere in government control of the market process.

No comprehensive rule book of price-setting can be devised in advance by even the most competent team of market experts and economic professionals. No matter how well-conceived may be the prices initially set, they impose unforeseen disturbances on commercial relationships. Naturally, there is immediate clamor for compensating adjustments.

Control of the price structure creates a demand for control of the processes of production and distribution as well. An example of this can be seen in the market quotas and acreage controls that developed in successive agricultural "adjustment" acts. The hope that supply and price controls can be rationalized under a few broad principles,

or limited to a few strategic points, proves illusory, and the system rapidly bogs down in a morass of detailed regulations, exceptions and evasions.

Some groups advocate putting prices under public scrutiny. Under this system, proposed price and wage increases would be announced in advance as economic "trial balloons." A public hearing would then examine the justification for the proposals.

This appealing gimmick presents insuperable practical difficulties. The steel companies, for example, would hardly find it possible to do more than quote a single price on basic steel, or on a few types, in an advanced declaration. But there are many grades and types of steel, specifications as to "extras," fabrications, terms of sale and delivery, and so on. Whatever base price the company finally set after public scrutiny could be materially modified in application through manipulation of these escape possibilities.

Similarly, in the case of automobiles, is it conceivable that the companies could set prices on new models months in advance of their introduction? Up to the last moment the companies themselves are uncertain as to what prices they can name. How, then, could an amateur public, which knows nothing of production costs, have a sensible idea on price?

The labor aspect of the notice-

and-waiting proposal also presents great difficulties. With all the skill differentials, seniority rights, fringe benefits and grievance procedures which affect the basic hourly rate, the practical use of this approach to wages and work rules seems slight. Moreover, experience in the recent steel impasse does not encourage the hope that either management or labor would be responsive to public opinion even if it could be captured and measured.

Theoretical question

In addition to the practical problems involved in price-setting, there is a theoretical question to consider. The proponents of government intervention rely on the assumption that the official price-maker possesses a wisdom for the performance of this task which the private price-setter does not have. But persons familiar with Washington life are well aware of the fact that government officials do not know what society needs any more than do private administrators. The idea that either government or a spokesman for society can formulate "the public interest" is a figment of the imagination. "Society" does not and cannot have an official spokesman, and the officials of government bring their own limited knowledge, their very considerable personal biases and their special-interest affiliations in-

to their vocation as policy-makers.

Of course, certain broad economic policies must be formulated and implemented by the federal government, both through the Congress and through the Executive branch. But even here Congressional action is not based merely on honest debate among informed statesmen; it also reflects ruthless pressures of interest groups and sordid trades among "practical" politicians. This voice of the people is the voice of God in only the most Pickwickian sense. Although this procedure is the only *workable* alternative to authoritarianism that democracy has for shaping fiscal policy and the institutional framework of the market, it is thoroughly unacceptable as a substitute for price and wage decision-making by management and labor.

If, then, we reject the deceptively simple device of resolving our full employment versus inflation dilemma by the use of direct government or public price and wage controls, what positive program can we adopt?

The general orientation of our program should be toward vigorous implementation of the policy explicitly stated in the Employment Act, namely "to foster and promote free competitive enterprise." How to do this is, in my judgment, the most pressing question that has emerged under the Employment Act. This is no simple matter, and

no single pill or miracle drug will accomplish our purpose. An adequate program must, like a doctor's prescription, contain not just one but several helpful ingredients.

I believe three such ingredients are indicated: (1) integration of our sprawling and confused anti-trust statutes under a basic policy law that declares a comprehensive principle of free competitive enterprise; (2) pressure for vigorous and consistent enforcement of this principle through the Department of Justice, the Federal Trade Commission, National Labor Relations Board and other regulatory agencies; (3) realistic studies by economists of the fundamental theory of large-scale competition for the guidance of the courts, Congress and administrative agencies in perfecting competitive institutions.

Systematic overhauling

Our problem is to devise a model of privately administered price-making and wage negotiation compatible with the purposes of the Employment Act. This requires a systematic overhauling of our market legislation in order to create a structure of competitive corporate and labor institutions conducive to stabilized high production. The legislation should begin with a clear-cut declaration that all parties and interest groups shall stand equal before the law of the land—that no segment of the economy, industrial,

commercial, agricultural, labor or financial, shall be immune from safeguards set up to prevent the abuse of concentrated economic power.

New market legislation would have to be followed by a careful re-examination of the many special regulatory laws which already exist to see that their provisions are in strict conformity with the new declaration of general policy. This re-examination would, of course, have to take into consideration the operative needs and peculiarities of the several business areas.

In the last analysis, keys to the solution of the problem of operating a free enterprise system must be found in an understanding of the basic causes of strain or breakdown. It seems to me that two such root causes are discernible today. First, I am persuaded that when an irresistible force of union cravings meets an immovable body of managerial prerogatives, as in the 1959 steel strike, it is partly because the scope of decision-making on wages and work rules has become too wide. Thus, the core issues that need to be resolved are frequently not touched in the decision-making process. To correct this weakness does not call for any program of corporation or union busting but, rather, a discriminating realignment of functions.

The issue as to centralization versus decentralization in the pri-

vate hemisphere of our economy runs parallel to the same issue in the public hemisphere. In the latter, it is clear that certain functions such as defense, international relations and fiscal policy must be the province of federal government. We find it better, however, to let local autonomy decide upon operational matters, civil and criminal. Thus, state and local jurisdictions may invent, experiment, learn by doing and profit by the experience of other autonomous groups.

Principles and practices

Similarly, in the modern corporation, certain financial, investment and technological policies can most efficiently be centrally determined. But wage bargains and detailed work rules fall in a different category. I believe these problems call for a serious effort by all parties to discover principles and shape practices of local autonomy. Through the local application of sound principles, conflicting aims should be reconciled without creating the kind of widespread impasse that can result from trying to extend a single formula to quite unlike situations.

Already there is a separation of powers between national unions and their locals, between individual unions and their federations, between parent corporations and their branches. This is a wholesome separation, but its usefulness

was nullified in the recent steel dispute by the industry-wide coalescence of the major steel companies, and the intrusion of the AFL-CIO and some nonsteel unions into the struggle of the steelworkers. Instead of this sort of centralization, we need a more flexible differentiation of local situations and a variety of accommodations through initiative, experimentation and natural selection.

Of course, any such suggestion will be greeted by the union hierarchy as a proposal to "weaken the unions" and will evoke the legitimate dread of the "company union." But I am not proposing the abolition of the national union or the multiunion federation. I only propose a restoration of powers of choice to the operational groups within the union hierarchies. The national union would still have a centralized role in general policy-making, promotion and in enterprise leadership—including legitimate lobbying. But its general policies on work rules and wage proposals would be tailored by the local to suit its own peculiar conditions. *Any strike vote would be taken independently by each union without constraint by others.*

This would not be a departure from practices now operating sporadically within the union movement. Differences in operational requirements at various places would be recognized, self-deter-

mined values would be assured and the dignity of local leadership would be raised. Local union leaders would not have to rubber-stamp central policy or seek promotion to the national hierarchy via such subservience. In the past, many union members have felt they had to support the national leaders even in an "unpopular strike." In the future these members might ponder whether they would not serve their own interests better by contributing to the making of differentiated adjustments rather than by accepting authoritarian decisions.

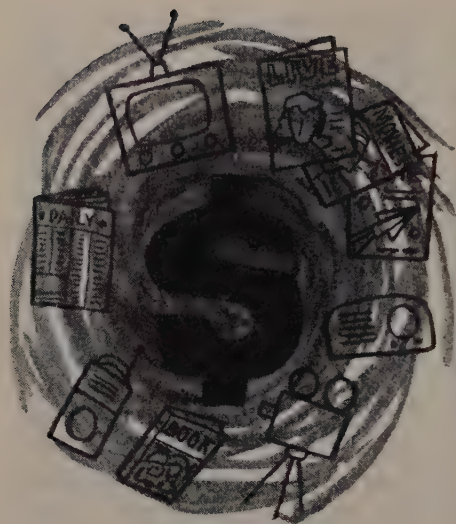
My proposal includes a similar restitution of powers of decision-making to the component-operating units of the centralized corporation. The breakaway of one or two steel companies from the all-industry front and the independent contracts which were made by can and aluminum companies affords food for thought.

Functional inseparability

A second impediment in the path of workable adjustments is the almost universal refusal of management to admit that the price of a product in relation to volume of sales, number of jobs within the company and rate of profits should be considered as an integral part of the wage problem. Management should admit the functional inseparability of these issues, and labor

should reciprocate by considering wages in relation to volume of employment, productivity and actual local living costs. This issue goes to the very heart of the current proposals for dealing with labor-management deadlocks by means of "fact-finding" committees, compulsory arbitration, Presidential pressure for "recommended" terms of settlement or legislation providing for "a third chair at the bargaining table."

The simple fact is that corporation orthodoxy clings to the philosophy of early proprietary capitalism even in our new day of trustee capitalism. Management is slow to adopt the scientific approach toward its economic problems that it long ago accepted in the area of technology. The province of "trade secrets," for example, has been eroded almost to the vanishing point by the progress of science and engineering. In consequence, industrial executives have turned to patent licensing as a practicable way of competitive life. Similarly, we need to substitute scientific method for "muscle" in the conduct of big-unit industrialism. Critical cases in the price-income process must be approached by arraying the pertinent factual material and applying to it the best of professional expertise. Until we can accomplish this end, our society will continue to labor under a serious cultural lag. ■



THE ECONOMICS OF INFORMATION

Who pays?

Who listens?

With what effect?

by Robert C. Sorensen

■ IN 1959, more than \$8 billion was spent on the production and dissemination of American newspapers, magazines, and radio and television broadcasts. This sum represents a spectacular increase in expenditures for these communications media. Radio and television costs have tripled since 1950. In the same period, newspaper and periodical costs have increased by about 50 per cent.

Advertisers have paid the lion's share of these costs, last year to the extent of more than \$6 billion. They have paid the complete cost of radio and television broadcasts since these industries were born. For many years they have also paid more than two-thirds of the cost of newspaper production. And, in

recent years, advertisers have increasingly paid the bills in the periodical field. Within the past 10 years their contribution to the income of periodicals has increased from 58 per cent to well over 66 per cent of the total.

On the other hand, consumers spent very little on the production of these communications media. They accepted gratis the outpourings of radio and television broadcasts, and they shouldered less than one-third of the cost of newspaper and magazine production. The only media of communication which are completely subsidized by the consumer are theater films (or films for theater exhibition) and books. Significantly, the yearly revenue of the motion picture in-

dustry, at least, has remained fairly static since 1948, with some decline in recent years.

It is obvious from these facts that the role of the advertiser in communications is becoming more important, while the role of the consumer is diminishing. This development gives rise to some important questions. Why do advertisers spend such huge sums to support communications media? How are the contents of these media affected by the financial status of advertisers? How is the public interest affected? Are there any alternatives to the situation? What changes are likely to occur?

The subsidization of communications media by advertisers is largely the result of several developments in our consumer-oriented economy since the end of World War II. Innumerable new products competed for the consumer's dollar at the same time that government policy was emphasizing private spending. This brought a demand for new publicity methods and marketing techniques. Competition for the consumer's purse became more and more intense, since the consumer's purchasing power did not expand as rapidly as the number of items clamoring for his attention. The growth of television and an increased emphasis on magazines in Sunday newspapers is certainly due in large part to the advertisers' desire to exploit new

ways of reaching the new mass markets.

In fact, this desire on the part of the advertisers has resulted in the transformation of some of these media into mass advertising vehicles. Many magazines now concentrate on audience size at the expense of audience appeal. Circulation of such magazines is often stimulated by artificial techniques, such as sending out complimentary copies, offering cut-rate subscriptions and keeping nonrenewing subscribers on mailing lists. Some magazines are completely advertiser-financed and are delivered free of charge to members of certain trades or professions.

More and more magazines are crying for public attention; hundreds of them crowd each other for space on the newsstand. But many of them offer little genuine reader interest. Their low price and ready accessibility are the only incentives to buy that the reader has. And, of course, the lower the price of an article, and the greater the degree of its ubiquity, the less discretion is required of the consumer.

Since television programs come free of charge, and since the television set is in the home, television requires of the viewer even less discretion than the magazine does of the reader. A person will look at a program which costs nothing even though he would not dream of paying for the privilege.

But communications media are not seeking full money recompense from the consumer. They are more interested in learning how and why people make "time" payments to communications. This knowledge is also sought by the advertiser, since he cannot hope to provoke people into seeing and perceiving his message unless they are paying attention to the medium carrying it.

The advertiser's investment in mass communications is balanced by whatever share he receives of the consumer's time and thought. Apparently, he is receiving a good deal of consumer time. According to a Sindlinger Associates report published in *Broadcasting* magazine, 126,564,000 Americans, 12 years of age and older, spent their time as follows during a representative week in 1959:

Activity	Million hours per week
Television	2,478.9
Radio	1,190.4
Newspapers	486.4
Magazines	213.5
Movies	132.2

In short, more than 4.5 billion man-hours were devoted to communications media by teen-age and adult Americans during a single week. No wonder we speak of "mass communications."

Other evidence indicates the extent to which people give time to communications media. On a single week-end, one Sunday magazine (*This Week*) is read in more than

13 million households. A readership study in 1956 discovered that a single average issue of seven magazines was looked into on nearly 450 million man-days. During a representative week in 1959, five highly rated television programs received a combined total of 195 million viewings.

Personal involvement

Though the consumer pays for his communications media in his personal involvement, he is not able to express his preferences directly through his purchase of communications media. Thus, the initiative for content lies largely with the communicators. And since the communicators' media are substantially subsidized by the advertisers, the communicators must defer to the advertisers' preferences, at least to some extent. The advertisers, in turn, favor content that the majority of people are thought to favor. Thus, millions of dollars are spent each year in Gallup-Robinson polls, Starch readership tests and Nielsen television ratings in order to find what people most often read or view.

Some observers argue that audiences are being given what advertisers "think" they want rather than the information and entertainment they have the right to expect from editors and artists. Do the mass communicators confuse the requirements of their audience

with those of the advertiser's market? Has editorial and program content diminished as the *raison d'être* of some communications vehicles?

A major concern among some communicators themselves is the absence in communications content of what the sociologists call "cultural pluralism"—a reflection of the many backgrounds and points of view that characterize our nation. In reality there is no such thing as a simple "mass audience." There can only be a large audience made up of many different segments. In ignoring segmented audiences in favor of an imaginary "whole audience," many publications and broadcasts have created a gap between the communicator and the *individual* consumer.

Ambivalent and fragmented

Symptoms of this gap can be seen in spite of the fact that people are paying more attention than ever before to newspapers, magazines and television broadcasts. Many pretested television broadcasts wither on the vine. Magazine circulations are not rising in proportion to increases among the reading population. The public's loyalty to favorite forms of communications are ambivalent and fragmented, as people are less sure about where they stand with communications media.

A variety of hysterical indict-

ments have been drawn up against communications as a result of the recent exposures of "payola" and deceptive advertising. While these indictments may help to point out the problems facing communications media, they do little toward devising constructive methods of improving the situation. Besides, these scandals represent the deceptions and mistakes of a few. They have no real bearing on the cost of mass media and the manner in which it must be paid.

One frequently discussed solution is to establish government control over the content of communications media. But, certainly, more government control is alien to the best interests of all concerned; there is no least common denominator more stultifying than a "people's policy."

Another suggestion is to give the consumer greater option in content selection by allowing him to purchase his communications directly. But it is unlikely that the consumer could effectively articulate what he wants from his magazine or broadcast. Unlike other goods and services for which he pays, the television program is something that he does not tangibly acquire; moreover, he can seldom anticipate it. Magazines and newspapers, too, because of their transitory character and psychological obsolescence, do not lend themselves very well to the artic-

ulation of audience preferences.

In the end, it will likely be the communications media themselves that will take action. The advertisers, in turn, will have to favor certain changes. Otherwise they will not be able to maintain their "shelf space" in the mind of the consumer. In the long run, their advertising messages can best be maintained in a provocative context that will attract and hold audience interest. And "provocation" requires a more personal relationship between communicator and consumer.

Future developments

Trends in the production and dissemination of mass communications do not indicate any radical changes. However, some future developments with respect to cost of communications media and consumer preference may occur as follows:

• *Television stations may assume control of their entire program output.* By using a so-called "magazine concept," commercials could be rotated among different times and programs during the day. Except for a choice of morning, afternoon or evening time, advertisers would have no monopoly on a specific time location. Under these circumstances, no television performer would be a salesman for any products while on the air. Nor would performances be geared in any way

to the promotion of particular products.

• *Networks may come under federal licensing control in the next few years.* Federal licensing of networks would mitigate the claim that "networks and stations have viewed the right to broadcast as an open door to private gain." At present the Federal Communications Commission is empowered to license individual stations, but it exercises little direct authority over the networks.

Another solution to this problem is contained in the suggestion that revenue from the private use of America's airwaves be allocated, along with a tax on TV sets, to establish a national "public" TV network. Such a network would not function for profit but to provide balance in program content and to exercise leadership-by-comparison in the program content of other stations. Any built-in private censorship for private gain would be replaced by a wide range of programming, including the controversial discussion of many important subjects at prime daytime and evening hours.

On the order of a British public corporation, this network would be government chartered and headed by a bipartisan commission. It would have no control whatsoever over the content or practices of mass media. Advertising would be rejected in order to avoid unfair

competition with private media.

•*Educational TV will probably expand.* Certain educational and private subscription broadcasting facilities enjoy close rapport with their audiences. It is doubtful, however, if television stations will ever be supported by their audiences—except, perhaps, for the running of film premieres and “spectaculars.”

•*Large mass magazines will have to cultivate their own uniqueness and special functions—for readers and advertisers alike.* Although people undoubtedly read magazines for their advertising as well as for their editorial content, mass consumer magazines will have to offer stronger reasons for their existence; otherwise, people will lose interest in them in favor of magazines appealing to their own specific interests. *Woman's Day* is only one example of a specialized magazine which has, in the last few years, prospered considerably in circulation, audience interest and advertising.

•*Magazines will make greater efforts to ignore page position and placement in selling advertising*

space. Recent studies have indicated that advertisements generally are subject to equal reader exposure regardless of where they may appear in a magazine.

If some or all of these developments should occur, it will mean that the communicators, more than advertisers, will determine what people want from their communications media. Media will make more judgments on the ingenuity that editors and program directors bring to their work.

The problem that will face these editors and program directors is how to bridge the gap that has appeared between the communications media and the public. The challenge is essentially twofold: (1) to discover more about the wants and needs of audiences; and (2) to determine means of serving specific groups of people rather than an amorphous “mass” public. The communications media, whether paid for by the communicators or the advertisers, cannot hope to serve the best interests of the public until this challenge has been met. ■

Research Rise

THE ROLE OF RESEARCH in American industry has increased at a phenomenal rate in recent times. Today there are more than 5,000 industrial laboratories in the U.S., but in 1920 there were fewer than 300. In the past five years, total research and development expenditures (including expenditures of government, industry, universities and private foundations) have more than doubled and are expected to double again by 1970.



LEISURE IN THE SOVIET UNION

The state controls the use of time off the job almost as rigidly as the job itself

by Lawrence Whetten

■ SOON AFTER the first sputnik was launched, the Soviet satirical magazine *Krokodil* commented, "In New York they're already making a sputnik cocktail, and all we've got is. . .," thus underscoring one of the several basic differences between the production-oriented society of the Soviets and the consumer-oriented society of the United States.

Behind such contrasts can be seen the Soviet state's systematic scheme for controlling the destiny of the man in the street. Communism defines as its ultimate objective the attainment of a communal mentality and morality. An intermediate goal on the way to this objective is increased industrializa-

tion which, in turn, requires improved "Socialist discipline." In the Russian system economic expansion involves stringent controls over all aspects of life, including the use of leisure time.

In fact, leisure activities are vitally important in a controlled society. Unless leisure time is carefully regulated, the "sense of sacrifice" which the worker is taught on the job could desert him in the hours he is away from it. Furthermore, the nature of leisure activities will, to some extent, determine the amount of capital available to the state for reinvestment and the type of products these investments will produce. Realization of the state's ultimate goal thus depends,

at least in part, on its success in controlling leisure time.

By contrast, the U.S. has few ultimate social objectives beyond the vague euphemism "the pursuit of happiness." Leisure in the U.S. is generally utilized for personal satisfaction—not for the good of the state. Therefore, while leisure pursuits are determined and controlled by the government in Communist countries, they are determined in the West by the people themselves.

It must be noted, however, that a movement toward self-interest was encouraged by the Kremlin in 1956 through liberalization of social controls. This has mitigated, to some extent, past Soviet attitudes toward leisure.

In the past, leisure has carried an evil connotation of lazy, selfish indulgence. The Soviet citizen has been expected "to rest and gather strength for new labors and successes." Rest, therefore, became a social responsibility as well as a constitutional right. The aim of this approach was increased industrial productivity; personal happiness was a secondary pursuit. Illness, boredom and emotional restlessness were registered as a failure to observe correctly prescribed rest procedures. Such conditions were, at times, considered offenses against the state.

In the United States the basic social unit in leisure pursuits is still the family. But in Russia this

basic unit is the group or collective, since the productive energies of society can more easily be controlled in such units.

A Russian citizen's introduction into the group commences early in life. State nurseries supervise communal training, recreation and discipline of children. Playing "cops and robbers" is strictly forbidden. Instead, the children memorize Aleksei Tolstoi's axiom, "There can be no happiness for a child outside of his society, as there can be no life for a plant that has been uprooted and flung on the barren soil." As the Russian child becomes older, the *Pioneer* organization plans his leisure time. When he reaches his teens, the *Komsomol* organization takes over.

Many adult workers, for financial or other reasons, remain at home during their annual vacations, but those able to leave usually apply for a berth in a rest home along the Black Sea coast. These workers often vacation by themselves, since working wives have a difficult time synchronizing their holidays with those of their husbands.

Whether the rest home is at Soci, Alusta or Yalta, the prescription is the same—enforced rest. The day consists of nourishing diets, casual bathing, occasional strolls in parks, lots of sunning, compulsory two-hour naps in the afternoon and early retirement at night. The doors are locked at 11:00 p.m.

There might be an occasional dance or cultural show, but there are no wild holiday parties. Though drunks are a common sight in Moscow, they are seldom seen in Yalta, for this resting is a solemn business. Restful it is, but fun it is not!

Again it must be noted that recently this approach to rest has been somewhat relaxed. Today, for example, Soviet citizens can own their own fishing equipment and fish by themselves. And it is much easier now to build a summer dacha for weekends and summer vacations, by oneself, away from the collective.

Palaces of culture

Every effort is made to fill leisure time during the working year with as many culturally and educationally rewarding activities as possible. Local groups such as hobby clubs, apartment-house councils, civil defense units, the factory shop study group, and the *Komsomol* or Party cell, are organized and supported by the government. Activities of these groups center around 150,000 local palaces of culture, which are often the most impressive buildings in sight. Though the individual is not forced to join specific organizations, social pressure is strong enough to bring non-conformists to heel.

It is hard to estimate accurately the amount of time these activities

consume. The average workweek is 46 hours. Daily life is plagued with time-consuming queues. Group meetings are scheduled for most of the evenings. All told, the average Russian has little time for other leisure pursuits. Even if he had the time, he would find his choice of cultural activities very limited. Moreover, the nature and content of those that are available are always state controlled.

Public complaints about the sterility of contemporary Soviet theater are well known in the West. A current Moscow joke has one Russian commenting to another, "Our local theater shows me nothing." His friend then replies, "Don't worry, comrade. Another one will be built in the coming Seven-Year Plan. Then we will have twice nothing."

There are approximately five million participants in amateur art and music groups, but who would dare play a Hindemith or Bartok number? In 1957, 22 million people participated in physical culture clubs. These programs are directed by state supervisors and they feature a series of progressive tests which culminate in the coveted award, "Ready for Labor and Defense."

Foreign travel is possible, but carefully controlled. Domestic travel is also controlled and generally crowded. Last summer in three principal cities of Central Asia,

there was an eight-week waiting list for train tickets. Travel by car is even more discouraging. In the first place, cars are expensive and the purchaser normally must wait about two years for delivery. When he finally receives his car he is confronted with police restrictions on travel outside his city and a general lack of highways. Nevertheless, there can be seen an increasing number of family cars in Russia. Where a car is available, a family has a much larger scope for self-reliance and a better opportunity for a family centered life.

Limited supply

There are 130,000 public catering houses in Russia similar in design and service to military mess-halls. However, in the entire city of Moscow, there are only 30 restaurants and no nightclubs. After 12:30 a.m. the only bar or restaurant open is the Ukrania Hotel. And there, as in any Russian restaurant, a patron can only be served 100 grams (two shots) of vodka per night. The available supply of food and drink is limited. In 1957 the U.S. produced five times as much beer and two and one-half times as much meat as the Soviet Union, even though the Soviet population exceeds that of the United States by some 40 million people.

As a result of all these limitations on leisure activities, many

Russians remain at home in the evening or stroll in the park. The home is often a communal apartment, since the living space legally granted to each citizen is only 9.3 cubic meters, less than the floor space of a cell in an American penitentiary. Entertainment at home is usually centered around books, radio and television in that order. Over a billion books were published in the USSR last year; one-fifth were ideological in nature and 340 million were works of fiction. However, since the Revolution only 16,000 titles of foreign fiction have been translated into Russian.

In 1958, Russia had in use two million television sets using 38,000 broadcast hours annually. There is only one channel and that one operates only three or four hours a night. At the same time, 85 per cent of American homes had TV sets. Americans also have a wide choice of program listings and listening hours. Two years ago 34 million radio sets were distributed in Russia. These were given at a ratio of one for every four urban dwellers and one for every eight rural inhabitants. Meanwhile, there were nearly enough radios in the U.S. to allow one per person.

These statistics are not used to demonstrate the industrial prowess of the United States, but to illustrate two points about the Russian society. The first point is that even the simplest pleasures, like an

evening on the town or a night at the theater, are controlled pleasures. The second point is that the production-oriented economy exercises social control in its curtailment of consumer goods. By withholding the drug of prosperity the Soviet government more easily inspires self-sacrifice. People can hardly become addicted to poverty.

Here it must be pointed out that there has been a steady improvement in the quality as well as in the quantity of consumer goods available in Russia. Though it will be some time before the Soviets meet Western standards, the present growth rate should eliminate acute scarcities in consumer goods within the foreseeable future. When that time arrives, one of the most effective social controls of leisure time will dissolve. Should that time arrive before the Russian society reaches a true state of communism, as neo-Stalinists point out, there is a grave possibility that the society will revert to bourgeois traits of acquisitiveness. To prevent this, there may be an increase in other forms of social control.

But this promises to be a difficult task. To date, the Russian has shown great resistance to group ef-

forts to reshape him mentally and morally. Though the group urges him to rest, and then work hard for the benefit of the state, the Russian still wants to enjoy himself. With Soviet rockets on the moon, he sees little need for self-sacrifice. Self-indulgence is consequently becoming more fashionable. This point is confirmed by recent Kremlin revelations. For example, the harvest in the Virgin Land failed because of the strike of 140,000 agricultural workers for better living conditions.

Nevertheless, more than ever before the Soviet people have the opportunity to be individuals, to satisfy personal desires and interests, to combine imagination and leisure time for maximum private enjoyment. True, such extravagant uses of leisure time are still in the fetal stage. But if the present trend continues, social controls on the national, group and personal level will grow more fragile and less adhesive.

The final question must be posed. Can the Kremlin flirt with consumer demands, including the more personalized use of leisure time, without passing the point of no return? ■

Joy of Retirement

IN 1959, Americans in the 60-76 age group were issued the largest number of passports, with those in their 50s taking second place. More than half the passport recipients took trips of less than two months, and 77 per cent spent their holiday in Europe.

Mathematics: its uses and rewards



RICHARD COURANT

Professor Emeritus,
Dept. of Mathematics, New York University

Why do some people fear mathematics?

What is mathematics?

Is it a substitute for decision-making?

How can we improve mathematics
teaching?

Do we waste mathematical talent?

TURN PAGE →

Mathematics: its uses and rewards

Q *Prof. Courant, as one of our leading mathematicians, I think possibly the best way to start off this interview would be to ask you how you account for the great fear which most people have of mathematics?*

A This, of course, is a question many people who work in mathematics ask themselves. I think the answer is really very simple. In the educational process, very much depends on (a) the teacher, and (b) books which supplement or replace the teacher. There are, of course, poor and uninspiring teachers in any field. But if the subject matter is relatively close to everyday life, it is easy for the student to make up for the deficiencies of inadequate teaching. The subject of mathematics, however, is abstract and removed from the immediate experience of every day. So unless a teacher of mathematics is competent, inspired and able to transmit some inspiration, the student is at a loss.

Q *So you think, then, that inadequate teaching is at the root of the problem?*

A I don't think that mathematics teachers are, on the average, worse than teachers of English or botany or other subjects. But in mathematics bad teaching shows more. I make it a point when I come across talented, promising research mathematicians to find out what stimulated them in this direction. Almost without exception, their stimulation came from inspiring teachers or perhaps from a challenging book. That is why several talented, promising students sometimes come from one environment—the same college or high school. In most cases there was a teacher who got the ball rolling.

Q *What about your own case?*

A When I was a high school boy I was interested in many things. I was basically interested in classical literature and languages. My in-

terest was nourished by contact with students of higher grades with whom I read Greek poetry and Greek drama. But my teachers in these areas were terribly dull. In mathematics, on the other hand, my teacher was an inspired man. He didn't know very much, as I found out later, but what he knew was part of him and he transmitted it to his students. This same teacher has stimulated a number of students, during a long period of years, who later went into mathematics or mathematical physics and achieved some distinction. Two of them got the Nobel Prize in physics.

Q *How do we get such inspired teachers?*

A That is a problem of teacher education. I don't think anybody has a complete solution to this problem. At any rate, it is unquestionably true that the teaching process, or what I call educational chain reaction, can only keep going through the efforts of good teachers. The history of scientific development has shown that progress usually comes from centers founded by dedicated teachers who inspired the people who came to them. Thus, whole generations have benefited from small "radioactive" nuclei of scientific inspiration.

Q *Can you give some examples of this?*

A In mathematical physics I have seen a most interesting example of this process in the person and work of Prof. Sommerfeld of Munich, Germany. He was a brilliant scholar and a most inspiring teacher. A whole generation of theoretical physicists went through his school. It's perfectly fantastic. Whenever you meet a theoretical physicist in this country or in Europe the chances are he had received some inspiration from Sommerfeld. Similarly, in experimental physics, Rutherford was a center of such activity in Cambridge, England, and so is Niels Bohr at Copenhagen. A very large number of first-rate people came from these institutes. They, in turn, planted the seeds of scientific development elsewhere. The whole development of physics all over the world can be traced to a few of these centers. They may die out again; some of them did die out in mathematics. The famous mathematics school at Gottingen, for example, was destroyed by the Nazis. German mathematics has degenerated very much, I would say.

Q *In other words, sociological conditions are extremely important.*

A Of course. Inspiring personalities can have an effect only if sociological conditions make it possible. Our American society does not provide the proper incentives. The rewards for intellectual and artistic achievement are very small compared to the position and salary received from success in business. This kind of sociological pattern is not so conducive to intellectual progress. Of course, a Mozart or a Haydn is a unique phenomenon in any society. But in this country such men would probably be subjected to temptations to go to Hollywood. Take the case of Kurt Weil. He had a very outstanding talent. He was picked up by Hollywood and, while he did some good composing there, he did not produce the kind of work of which he was capable.

Science and a sense of values

Q *Does our sense of values condition our conception of what science is?*

A Very definitely. If President Eisenhower or any government or business official uses the word science, he immediately conjures forth an image of a man shooting up rockets in the air. I am afraid that one of the factors that has led to the growing prestige of the scientist since the end of World War II has been his role in discovering better weapons for the destruction of man. Now, I have nothing against rockets or missiles; I, myself, have cooperated in this kind of work. But the greatness of science does not consist of rocketry and missiles.

Q *Prof. Courant, you said earlier that one of the difficulties that most people encounter in learning mathematics is that it is a subject which has no very direct bearing on immediate experience. Now, I should like to explore that a little further. What is mathematics and what distinguishes mathematical modes of thought from the kind of thinking that most of us apply to everyday problems?*

A It is very difficult to express what mathematics is. Goethe said that if ideas are lacking, a word soon arises to fill the vacuum. You cannot explain in a few words what mathematics is to somebody who does not already know something about it. In the same way, you cannot tell what music is to someone who has never listened to a symphony or

RICHARD COURANT

an opera. You cannot define what painting is to someone who has never looked at a painting. A certain amount of experience with a subject is necessary before you can sit back and talk *about* it.

Q *Let us assume that we all know something about mathematics. How would you explain it further?*

A I have thought about this question a great deal. I have even written a book about it. Mathematics certainly is not concerned with objects of daily life. It has nothing to do with pieces of wood or metal, but with abstractions such as numbers, geometrical objects, sets and functions which really are created by the human mind.

Q *Well, what is the connection between mathematical objects and reality?*

A There are right angles, straight lines, surfaces and so forth which exist in reality as material objects. By abstracting from a material object everything that is not inherent in it you come to the idea of form. So you can say that mathematics deals with form abstracted from objects. The interesting fact is that precise, logical conclusions can be drawn from the relationships which exist between these abstract forms. Mathematical theory, then, receives its stimulus from contact with reality, but it has a life of its own. It can be developed further and further away from experience in the expectation that it may be found to have some bearing on reality in another context.

Q *Then, does the substance of mathematics theory change?*

A No, but the emphasis changes. In some periods of development certain aspects of mathematics seem to be more interesting, more important or more in fashion than these same aspects may seem in another era. You can talk mathematics on various levels. With people like Sommerfeld or Hilbert, for example, mathematical conversations were on a very high level. But mathematics should also be a daily experience in high school education.

Q *However, the high school teachers of 200 million people cannot be educated by Sommerfelds.*

A Of course not. It would be a great mistake to try to make great productive scientists out of every half-talented student. But there has

to be a certain chain reaction. Good teachers must receive good training and be given good opportunities. This ideal is certainly not being reached. Many people are being trained as mathematics teachers today who cannot even think in mathematical terms.

Q *How is mathematical thinking different from any other kind of thinking?*

A In a way it is easier to think clearly and precisely in mathematics than it is in many other areas, such as law or business. What a plane is, what a sphere is, can be clearly explained. Right or wrong can be ascertained quite readily. But to a lawyer or a jurist, clear, precise and irrefutable thinking is much more difficult. I once talked to a member of the Supreme Court in Germany, and I was surprised to find that his ability to think in clear and logical terms was very limited. He made mistakes.

How mathematicians can help the executive in business

Q *Prof. Courant, this ties in with the idea of the usefulness of mathematics. In fact, this has become a key theme in recent years, not only with reference to missiles, rockets, etc., but also in terms of how mathematics can help the executive in business. Whole series of new techniques have been devised to help the executive come to more accurate and precise decisions. How do you evaluate some of these techniques and the machines which implement them?*

A I want to say first of all that I am often skeptical in the face of big claims. I do not believe advertising agencies or sales people until I have a chance to examine their claims. I have great misgivings about some of the claims made or implied for such "decision-making" machines or mathematical procedures. My personal experience with successful businessmen in various fields has been that their correct judgment is due to a mixture of rational analysis of facts and a kind of intuition that is not visibly connected with rational procedures.

Q *How did the idea of substituting mathematics for decision-making originate?*

A It started a long time ago when mathematicians first became inter-

RICHARD COURANT

ested in probability, which they studied in relation to games. The theory of games has been studied more closely in recent years. The late John von Neumann, one of the most intelligent, penetrating and versatile mathematicians of our era, wrote a paper on the theory of games when he was still a young man in Hungary. Later in Princeton he brought up the subject again, and together with Oskar Morgenstern, the economist, wrote a more extensive book on the theory of games, which became famous. This book was a great achievement and contained some very interesting ideas. Later, smaller people took up the subject and blew it up into sizable, well-supported enterprises. I think it is dangerously misleading to present game theory as a reliable basis for strategy and tactics in war and in business. I think there will always be a need for human judgment in human situations.

Q Does this mean that you do not see any practical application for game theory?

A I would not say that at all. I do think the game theory has some application in business. Machines can be of enormous advantage in sorting out data, simplifying it and solidifying it. In this area they offer a greatly improved efficiency over human methods. In a big manufacturing concern, for example, data can be processed to show the best locations for new factories, the best methods of distribution and the best manner of organizing distribution. But I do not believe that responsible decision-making and imaginative leadership can be replaced by numerical and mathematical relationships.

Q Would you say it is impossible?

A The computing machine as a labor-saving device can do almost miraculous service. But I don't think it is wise to try to base an economy on computing machines. They are just a tool. And my feeling is that a little bit more has been made of them than may be justified. I think, in a way, this is a reflection on our society. People don't want to take responsibility for their actions. Therefore, the idea of placing the responsibility of decision-making on an impersonal object like a machine seems very attractive.

Q *Do you think this is why so much money and talent has been poured into the development of these machines?*

A I wouldn't go so far as to say that. I myself am a strong believer in the value of computing machines and have taken a strong interest in their development. As products of ingenious engineering, computing machines are a most admirable and exciting achievement. But to ascribe to them anything like life and intelligence poses a dangerous threat. Some of the protagonists of computers were great scientists—Von Neumann and Enrico Fermi—who certainly considered the machines as servants of science, not as masters. Any trace of the opposite view can scare scientists away from getting involved with computing enterprises. So enthusiastic exaggerations are downright dangerous and can hamper the task of making full use of this tool. The safety of the United States will never depend on linear programming or on game theory, notwithstanding that a definite usefulness can be attributed to these activities.

A machine cannot replace human imagination

Q *But Prof. Wiener, among others, has made certain claims for the growing ability of the more sophisticated electronic computers to approximate human capacities. For example, he showed me their checkers machines, which play checkers as well as the best checkers player at Massachusetts Institute of Technology. And chess is moving ahead. This has led some reliable men to express the fear that these machines will come to take over some skills which formerly have been considered purely human and intellectual. Do you think that such an invasion of what used to be "human" skills is a realistic fear?*

A This is a very difficult question. If you design a machine which can play a limited game of checkers, that is one thing. But if you design a machine that can produce something worthwhile to replace human imagination, that is something else. I have seen no evidence of this, in spite of the fact that computing machines can compose what may sound like music. At any rate, there are distinctions that you can become quite sure of after a while. I don't think a machine can produce original compositions.

RICHARD COURANT

Q *How closely do the workings of computer machines approximate the workings of the human brain?*

A The human brain is a very complex structure of interconnections, reactions, controls, and so on, of which the complex computing machine can merely remind you. I do not think that the way in which the human nervous system operates is even remotely approximated by a digital computer. I think it is just preposterous to think so, and also misleading. There are interesting analogies that may mean a little more than is obvious, but to extrapolate as fantastically as some people do is absurd.

Q *What do you feel is the next step to be taken in the development of electronic computers?*

A I think that, even more important than the engineering development of computing machines, is the development of the *use* of computing machines. This involves training people to identify areas in which machines can be used. This aspect of education is lagging far behind the technical development of the machines themselves. An unbelievable amount of constructive thinking has gone into the electronics and engineering of computing machines. This is a very great achievement. But as these machines become more complicated, the number of people who can make full use of them becomes relatively smaller. Now the question is, where are the people who can make use of these wonderful toys? This problem seems to exist in other countries, too—even in Russia.

Q *How do you think this problem can be solved?*

A It is a very complex problem to match technical development with the human educational development required to handle it. Again, in this problem, as in others, the educational chain reaction must come into play. Machines can be tools to help achieve a better world. But behind the machines there must always be competent, inspired and devoted men to make sure that the mechanical computers are utilized in the best interests of society.

Q *Thank you, Prof. Courant.* ■



From tribal state to nation

NIGERIA prepares for independence

by George H. T. Kimble

■ NEXT OCTOBER the world will witness the birth of the largest nation ever sired by colonialism out of tribalism; for on the first of that month the British Colony and Protectorate of Nigeria becomes a sovereign state. Clearly, such an event, enjoying the good will and support of all free nations (including Great Britain), calls for celebration. And celebrations there will be—on a scale rivaling those of any Oriental nation for show, and those of any Western one for salesmanship.

But birth is a time of concern as well as celebration, of inventory no less than intention, and often poses as many questions as it answers.

Compared to most of the world's young nations, Nigeria is well served by environment. It occupies

a focal position as the meeting place of West and Central Africa, of forest, savanna and desert, of cultivator and cattleman, Negro and Hamite, Christian and Mohammedan.

Nearly as wide as it is long and with singularly unindented borders, Nigeria has one of the world's highest area-to-perimeter ratios. No important center is more than 750 miles from Lagos, the federal capital. About half of its 373,000 square miles lies below the 1,000-foot contour, while much of what lies above is no more rugged than a Kansas landscape.

Only in the extreme south does the wet season last more than six months; in the extreme north it lasts less than three. But even heavy and habitual rains have their

uses, since they support fine forests of hardwood, oil palm, cocoa and rubber, the latter three being Nigeria's most important source of export revenue. In 1958, the combined value of these "forest" exports was approximately \$189 million. Nor does the value of the forest stop here. Many of the most important foods grown for domestic consumption are "forest" crops.

Though smaller, the economic value of the drier, grass-and-parkland areas in the central (Middle Belt) and northern portions of the country is far from negligible. Northern farmers raise guinea corn, maize, millets, peanuts, cotton and shea nuts, while those of the Middle Belt raise both forest and northern crops. Where irrigation is possible, rice, sugar cane, tobacco and a great variety of truck crops can be grown. And thanks to their dryness and consequent freedom from "fly," the savanna zones also support several million head of cattle.

The country's mineral endowment is likewise considerable. Throughout most of the post-World War II period, Nigeria has led the world in the output of columbite, a mineral needed in the manufacture of high temperature alloys. For nearly half a century the tin mines of the Jos Plateau have put Nigeria among the world's 10 largest producers of that commodity. Coal is found in many

places and mined on a steadily growing scale in the Enugu area of the Eastern Region. In the past two or three years, large oil and gas fields have been located by the Shell-BP Petroleum Development Co. near the Niger Delta.

Other minerals found in exploitable quantities (if not all currently exploited) are iron ore, limestone, lead, zinc, gold, silver, manganese, tungsten, titanium, monazite, tantalite, thorium and zircon. In 1957 the total export value of these minerals was around \$22 million, although in 1958, a world recession year, this figure dropped to \$12 million.

As young nations go, Nigeria is well served by its inhabitants. Since more than 99 per cent of them are of African stock, and scarcely any of the rest regard Nigeria as home, there is no race problem in the usual sense of the term. At the same time, the people of Nigeria have had a lot to do with other "races" in their time. Since the late 15th century their coastal waters have been frequented by European shipmasters in search of cargoes, and Kano was a center of trans-Saharan, i.e., international, trade long before then. For the past 75 years, they have had the British living in their midst. While these international relations may not always have been to their liking, or of their choosing, the Nigerian leaders have learned a number of

things no young nation can do without: among them resilience to change, horse sense in trading and the uses of education.

Many Nigerians, it must be admitted, are still illiterate, and many of the literate have little to read or, for that matter, little desire to read. On the other hand, it is probable that no modern country has come to nationhood with a larger corps of well-educated and well-trained administrators. Certainly, no Negro country has a better educational system—technical and academic—or more ambitious plans for improving it. Already by 1956 some 2.6 million children were attending school. The number of students enrolled in educational programs of one kind or another in the whole of Nigeria is expected to exceed four million by October, 1960. Nor is it only the educated who have something to offer the new nation, for a man does not need to be lettered to possess traditional manual skills.

Notable for versatility

Again, as young nations go, Nigeria has benefited from its developers. For years it has had a civil service that even the government's worst critics concede to be efficient and honest. For years, too, it has had a succession of local, provincial and regional administrators notable for their versatility, if not always for their vision. And for

over 30 years it has had the United Africa Co., a division of Unilever Ltd.

Unhappy as some Nigerians are about the vast reach and semimonopolistic scope of U.A.C.'s activities (including the import and sale of all types of merchandise and machinery, the purchase and sale of all types of produce, the running of plantations, department stores, ports, river and road transport services, insurance and advertising agencies, and the manufacture of beer and mineral waters), the company has unquestionably been the largest single factor in the commercial development of the country. It has encouraged every sign of Nigerian initiative, and has been a consistent advocate of "Nigerianization," and a pioneer of in-service training programs aimed at bringing it about.

Thanks in large measure to the sustained exertions of government and business agencies, Nigeria is today sturdier, and shows more evidences of development, than most underdeveloped nations. Consider, for instance, what has been done in the field of transportation. As of 1958 the country had approximately 37,000 miles of improved road, all of it negotiable by truck, and at least 4,000 miles of it as well suited to the Rolls as the Land-rover. While the country's rail net totals barely 1,800 route miles, it carried some two million tons of

revenue-earning freight and nearly eight million passengers in 1958. By 1963, when extensions now under construction are complete, no economically important area will be more than a short motor haul from a rail depot. The major seaports of Lagos and Port Harcourt are equal in berthing facilities and handling equipment to comparably sized ports in any continent. Inland waterways do a sizable traffic in bulky commodities, and all the large towns are linked by well-run passenger and freight air services. International airports at Lagos and Kano are served by eight carriers.

Cottage industries

Or take manufacturing. For many years Nigeria has had a wide variety of cottage industries, based on locally available plant, animal and mineral resources. While these industries contributed only one and one-half per cent of the national income in 1957, they have provided a livelihood for an estimated 500,000 men. To these have recently been added (mostly in the last 10 years or so) such "factory" industries as cement, cotton textiles, cigarettes, beer, soap, boat-building, plastics, metal containers and construction. Most of these larger industries are financed and owned by expatriates, but Nigerians are becoming increasingly impressed by the opportunities which manufacturing provides for the invest-

ment of native capital and skills. In 1957 the labor force in manufacturing and construction establishments with 10 or more employees was roughly 143,000, or more than in any other category.

For a young country, also, Nigeria has a high proportion of its wage-earning population in commerce. In 1957 more than 56,000 people worked in wholesale and retail trade houses, banks, insurance companies and other commercial establishments with 10 or more employees, and it is probable that nearly 10 times as many people were employed in smaller firms and owner-operated shops and stalls. Approximately one-third of Nigeria's population is wage earning.

All of which helps to give Nigeria a national income (1956-57) of somewhere between \$2.3 billion and \$2.7 billion, or between \$70 and \$80 per capita. Small as these figures are, they do not compare badly with those of most predominantly agricultural countries. The per capita figure is higher than it is, for instance, in Uganda, Tanganyika, Pakistan and India. The total national income is almost as high as the combined total incomes of Ghana, British East Africa and the Federation of Rhodesia and Nyasaland. Further, since the early 1950s real income has been increasing at about two and one-half per cent per annum, allowing for population growth. Reflecting this

upward trend are a 20 per cent increase (between 1950-51 and 1956-57) in expenditure on private consumer goods, and a doubling of the imported quantities of such goods. This brings us to some of the circumstances that would seem to ill serve the young country's aspirations.

As of the fiscal year 1956-57, private consumption of both domestic and imported goods represented approximately 87 per cent of the country's total "expenditure." Of the remaining 13 per cent, less than two-thirds was accounted for by domestic investment, government and private. (The balance consisted of "government consumption.")

Up to now, domestic investment has been very small, amounting in 1956-57 to \$267.7 million, or less than \$8 per head. Doubtless, these figures could have been higher had the government been able to mobilize private savings. But "spending money" is still such a novelty that most of those who have it prefer to buy things they can see and control rather than invest in organizations run by people they never see and over whom they have little or no control. Granted that there are a large and growing number of Post Office Savings Bank accounts; but the amounts handled by them still average less than \$60 per depositor.

Nor has foreign investment yet contributed much to this large

country's need for growth capital. Between the fiscal years 1950-51 and 1956-57, foreign investment in Nigeria increased from \$29.4 million to \$53.5 million, that is, by about 66 cents per head of population. Since 1956-57 there have been a number of long-term development loans from the World Bank, the United Kingdom government and the Colonial Development Corporation, but the total amount of overseas money invested in the country as of 1959 was thought to be still under \$100 million. Nor is this for want of trying, for both federal and regional governments have passed ordinances granting companies tax concessions. Neither is it for want of promising industrial openings. Agencies reporting on the Nigerian economy in the past few years all see a broad range of opportunities in the field of consumer goods manufacturing and in the processing of agricultural products.

Compound of ingredients

What is wanting, perhaps, is confidence on the part of would-be investors. As in all countries, this is a compound of many ingredients, all of them easier to name than find. Important among them are integrity, respect for constituted authority, political *savoir-faire* and cultural cohesion. Of these the last is among the hardest to find. For Nigeria is less a homogeneous

state than a heterogeneous collection of more than 200 ethnic groups, themselves grouped into three heterogeneous administrations, or regions. While many of the country's leaders now think of themselves as Nigerians, most of their followers still regard themselves as Ibos, Yorubas, Hausas, Fulanis, and so on. The problem of getting these tribes to play satellite to a larger Nigerian world appears formidable.

There are other difficulties, too. Raising the health and nutritional levels of the people and increasing labor efficiency are two such immense problems. By Western standards, Nigerian man-hour outputs are low and unreliable; turnovers are large; losses from breakage and waste high. There is also the difficulty of getting the Nigerian economy onto a broad base. For many years it has been largely supported by six primary commodities. Three of these—palm products, cocoa and peanuts (oil and kernels)—have provided not less than two-thirds of the country's ex-

port revenue. In 1947 the figure was 71 per cent; in 1950, 69 per cent; in 1958, 66.6 per cent. While these figures show the country's decreasing dependence on the first three of the six, the second three commodities (cotton, rubber and timber) are more important today than they were in 1950, and dependence on the six commodities has grown over the same period from 78 per cent of the total export value to 82 per cent.

But difficulties are the common lot of nations, old and young. That Nigeria will surmount hers as quickly as some of her leaders suppose is doubtful, for the accolade of self-government is no magic wand. It confers many precious gifts, but none of them may be transmitted overnight into capital and skills, let alone confidence. While the former may be supplied from without, the latter can grow only from within. Given signs of such growth, Nigeria's wealthy friends in both the Old World and the New can surely be relied upon to nourish it. ■

Nutrition in the News

NEWSPAPERS CONTAIN 90 per cent cellulose and are nutritionally similar to hay. Scandinavian farmers, having discovered that bacteria in a cow's stomach transform the newsprint into digestible starches, are already feeding newsprint to their herds. American researchers on the West Coast are currently experimenting with cattle feed pellets made from newsprint. If the experiments show favorable results, today's newspaper may eventually reappear in our homes as tomorrow's beef-steak.



**lower
steel
demand**

Predictions of increasing inflationary pressures after labor's victory in the steel strike have not been borne out by subsequent events. Although there was a pent-up demand for steel when a Taft-Hartley injunction sent the steelworkers back to the mills last fall, this backlog of orders has apparently been satisfied. The industry was producing at about 95 per cent of capacity in February, but new orders are running about 10 per cent less than a month ago.

**lower
auto
output**

The main reason for the lessening demand for steel is Detroit's previous overestimation of the spring market for new cars. Auto output has steadily declined from a late January peak of 175,000 cars per week to about 153,000 in late February and is expected to go lower. Present indications point to a first quarter output of about 1.9 million cars as compared with early January projections of 2.25 million. March 1 saw dealer inventories at their highest on record for the beginning of spring. This has been reflected in recent layoffs by the big three auto producers.

**the
unemployed**

Although the economy as a whole can be considered highly prosperous, there is still the nagging problem of that 5.2 per cent of the labor force which is unemployed. Of these four million workers, about half

could be classified as either victims of automation or residents of areas afflicted by chronic unemployment. The arrival of spring will see a traditional decrease in unemployment, but it will not solve the basic problem.

**consumer
price
leveling**

The Consumer Price Index dropped .1 per cent in January. This was the second consecutive monthly decline. The decline left the Index at 125.5 per cent of the 1947-49 average, the lowest since September, 1959. Government economists envisage relative consumer price stability for at least another six months because of declining food prices and anticipated discounts on new automobiles.

**the
farm
problem**

One of the most vexing problems facing the economy is that of declining farm income which was at a projected annual rate of \$11.4 billion in December, 1959, as compared with \$14.1 billion just a year earlier. This was reflected in heavy declines in farm equipment purchases in the first two months of 1960. It also promises to cut heavily into farmers' purchases of consumer durables. This increasingly nettlesome problem certainly will not be solved in an election year which finds both political parties vying for farm votes and avoiding the hard decisions which might ultimately alleviate the farm problem.

**Inflation
or
deflation?**

The economic outlook for the next six months is one of contradictions. In some sectors of the economy—mostly in the service area—there are inflationary pressures; while in others—e.g., farming—the pressures are deflationary. An increase in steel prices, in view of the union's new contract, is almost inevitable. The question is when. It is just possible that the steel companies will hold off until after the election in November, in which case the effects would not be felt until early in 1961. A sharp increase in steel prices could set off a new round of inflation anomalously coupled with declining farm income and pockets of unemployment. ■



BY DEFAULT

Unrealistic depreciation allowances have the effect of overstating profits and understating replacement costs

by William T. Hogan, S.J.

■ AMERICAN INDUSTRY today finds itself faced with a curious paradox. In spite of record profits, many companies have not had the capital necessary to replace and modernize their plant and equipment. The urgency of the problem has been indicated by recent estimates which reveal that one-third of the American industrial machine is economically obsolete.

This condition is the result, in great part, of the inflationary trend that has plagued the economy for the last two decades. Measured in terms of the Consumer Price Index, the purchasing power of the 1939 dollar has fallen to 48 cents. This devaluation shows the extent of the problems faced by American business enterprises in the replacement of plant and equipment installed prior to World War II.

A more significant statistic in re-

gard to the replacement of equipment is the decline in the value of the construction dollar, which has dropped to 35 cents during the last 20 years. Thus equipment installed in 1939, at a cost of \$1 million, cannot be replaced today for less than \$3 million. Nevertheless, under the present tax laws it is possible to reclaim only the original cost of the equipment: \$1 million. The additional money must come from another source. The problem is not confined to large industry alone, but exists in all industries using long-lived capital equipment that must be written off in a 20- to 30-year period.

To date, no genuine solution to the problem of financing the replacement of equipment has been offered, although the situation was somewhat alleviated by the limited application in the last few years of

the Defense Production Act of 1940. The Act allowed a five-year write-off of war and defense plants so that the investment could be recouped in a short time and thus prevent losses to companies installing plants exclusively for wartime use.

This policy of rapid amortization was suspended at the end of the war and was not restored until the advent of the Korean conflict in 1950. Since 1956 very few certificates of necessity granting rapid write-offs have been issued.

In any case, the application of a five-year amortization schedule is only a palliative and not a solution. Apart from the fact that only those facilities deemed necessary for defense are eligible, such write-offs only serve to minimize the short-run effect of inflation. They do not solve the problem created by continued inflation. Facilities written off in five years would still have to be replaced at a much higher figure than the original cost at the end of a 20-year period.

Some specific examples comparing replacement costs with original costs will help bring the problem into sharper focus. In 1940 the railroads paid \$2,550 for a 55-ton capacity freight car. Today the same capacity car costs \$9,000. A printing press purchased for \$31,400 in 1935 required an investment of \$128,000 when replaced in 1948. In the steel industry a blast furnace,

which is a basic producing unit, could be installed in 1945 for \$8 million. Today virtually the same furnace cannot be built for less than \$26 million. In order to replace its facilities, one steel company during a 10-year period had to supplement every dollar invested from depreciation accrual with \$1.30 taken from profits. Thus \$220 million had to be taken out of profits to supplement \$170 million of depreciation allowances.

An objection might be offered to this analysis of the depreciation-replacement problem, viz., facilities are rarely, if ever, replaced in kind. New equipment is virtually always capable of more production and greater efficiency. Thus some of the additional funds required to replace worn-out equipment can legitimately be considered as part of an expansion program.

In response to this it should be noted: first, the money that might be charged to expansion under these circumstances would usually be a small amount and difficult to determine; second, most of this type of expansion is only potential and not actual until the company's facilities are put in balance. For example: if the steel industry replaced a 3,000-feet-a-minute continuous cold reduction mill with one capable of 6,000 feet a minute, the additional 3,000 feet could not be utilized unless there were more steel to put through the mill and

adequate facilities to finish the steel once it had been processed in the mill.

The problem of obtaining money to close the gap between depreciation allowances and replacement costs is a serious one. Several solutions have been suggested, but they are in the nature of expedients and do not solve the problem.

Emergency measure

The first of these proposes that the money be borrowed. This recourse could work for a year or two as an emergency measure and has, in fact, been used by a few companies. But no company can go on year after year borrowing large sums of money merely to replace facilities. Only where the return on the newly installed equipment is great enough to pay the interest on the debt, and amortize it as well, would a consistent policy of borrowing be feasible. This would require a return of about 10 per cent on the investment, with half going into interest payments and the other half into amortization. Very few facilities, however, yield such a large saving.

The second expedient is to sell stock. At first sight this seems to have possibilities, for it has been maintained that the book value of the company would be increased and the actual dollar investment of the original shareholders would be protected. For example, if a com-

pany was worth \$1 million and issued an additional \$1 million in stock to new shareholders in order to obtain capital merely to replace its plant, the original shareholders who formerly owned the entire plant would now own only half of it. Further, since this is principally a replacement and not an expansion, we have no right to assume that a great deal more will be produced; thus earnings should remain relatively stable. This would mean that the dividends to the original stockholders would be cut in half, since there are now twice as many stockholders to satisfy with the same income. Lastly, it seems doubtful that anyone would buy stock in a company that was not making enough to cover its total costs of production—and wear and tear on facilities is definitely a cost of production.

Thus, it seems that these two expedients must be rejected in favor of a third: the investment of retained earnings, a procedure that has provided a partial solution to the difficulty of bridging the gap between depreciation charges and actual replacement costs. This approach, however, has limitations and results in distortions that are not always fully recognized.

Profits are determined by subtracting from gross income the full costs of doing business, which should include adequate charges for depreciation of capital equip-

ment. Because industry is not allowed to charge off adequate sums for depreciation, the declared profits are inflated by the difference between the allowed charges and those that should have been made. In 1956 the steel industry's taxable income was overstated by \$300 million to \$400 million, since that amount had to be plowed back out of earnings just to replace facilities.

Effect on prices

The use of earnings for replacement also has an effect on prices. In order to replace equipment, industry has had to set prices high enough to cover that portion of costs not allowed by our present tax laws. Further, with a 52 per cent income tax rate, industry must earn \$2 before taxes for every \$1 of profit it spends for replacement after taxes. Prices, therefore, have to be set to take care of replacement needs. If the cost of plant and equipment is not recouped through earnings, a company may well be paying dividends out of its capital.

Not every industry has been in a position to charge the necessary prices to recoup replacement costs out of profits. The American textile industry is a case in point. Here a relatively low level of demand has discouraged investment in new facilities. Between 1947 and 1958 expenditures for new plant and equipment by the domestic tex-

tile industry fell from \$510 million to \$252 million, a drop of 50.6 per cent. The decline in spending on new equipment, according to spokesmen for the textile machine industry in recent Congressional testimony, has created a serious problem of obsolescence in the domestic industry. One reason that some mills continue to operate relatively old and high-cost machinery is the absence of realistic depreciation rates which would encourage more mills to install additional new equipment.

The replacement of worn-out and economically obsolete plant and equipment is of paramount importance if we are to maintain and increase productivity, which is the principal means at our disposal for increasing the nation's real wealth.

Increased productivity is likewise a means of controlling inflation. If production yields are higher, it is possible to increase wages and dividends without increasing prices or, conversely, maintain wages and dividends while reducing prices.

Further, increasing productivity is one of the most effective means to compete with foreign producers and particularly with the potential economic threat we face from Soviet Russia. Failure to replace obsolete equipment will curtail productivity and allow other industrialized countries to cut into the lead the U.S. has maintained in

manufacturing for over 50 years.

If we in the U.S. fail to take full advantage of the latest technological developments while maintaining wage rates that are three to six times higher than those of the rest of the world, we shall find that our costs of production will increase to a point where we will price ourselves out of many foreign markets and place a portion of our domestic market in jeopardy.

The solution to the difficult problem of financing the replacement of obsolete facilities will require a change in the tax laws. A method must be worked out by which enough depreciation can be charged off before taxes to allow the investor to recover the purchasing power of the dollars represented in his original investment. In order to accomplish this, plant and equipment will have to be revalued annually by means of a cost or price index. Such an index would take cognizance of inflation as well as of deflation, if such should occur, and so allow a company to write off the true cost of capital consumption.

Thus, under a plan of annual review, if a company had depreciable property valued at \$1 million in

1957, on which it took five per cent depreciation, and if the index showed an advance of two per cent in 1958, then on this basis the company's property would have been revalued at \$1,020,000, which would be likewise depreciated at five per cent. In the next year, if the index increased another two per cent, the property value would increase to \$1,040,000, on which five per cent of depreciation would also be taken. In this way the total cost of the wear and tear on capital equipment would be recouped and a more realistic depreciation policy would be in operation.

It has been argued that any reform in the depreciation phase of the tax laws will reduce government revenues. This is a possibility, but by no means a certainty, since it is presumed that the additional accruals will be spent for new equipment, thus raising the income of machinery builders and others to provide a broader tax base. This point has been developed at length by the Senate Small Business Committee in its recent report on the effect of current federal tax depreciation policies on small business. ■

Space Age Economics

- IN ONE MINUTE, an intercontinental ballistic missile consumes as much fuel as the average motorist needs to run his car for 30 years.
- UPON RE-ENTERING the earth's atmosphere, the nose cone of a rocket generates enough heat to cook a large turkey in three seconds.



A moral fable for Americans

The Commissar and the Editor

by Lowell B. Mason

■ "JUST CALL ME COMMISSAR," said the speaker at breakfast while introducing himself to the editor.

"Commissar? Of course I am not one, but it has fewer syllables than commissioner, which I was once. Actually commissar is more accurate, since on the Federal Trade Commission I always sat in judgment of those I charged with violating the law—just like a real commissar."

The editor had asked the commissar to do a 2,000-word article on government control of the television industry, and the commissar suggested discussing the proposed article over breakfast at Rudy's.

The editor got there first. Then the commissar came in, sat down and started talking. It seemed he

would never stop. "You want me to do 2,000 words on how we must stop phony quiz shows, payola and hanky panky."

"Yes," said the editor, "I was thinking perhaps we should put some real teeth in the FCC and FTC acts. The chairmen of both commissions say the courts won't let them do what some Senators and Congressmen want them to do. In the face of widespread corruption, niggling court decisions have hamstrung the effective policing of the airwaves. Some very learned scholars contend judicial review of administrative acts should be eliminated for a more practical and rational relationship between the government and its citizens."

"Like Dr. Frederick F. Blachley,

Commissioner Mason would like to acknowledge the assistance of Dr. Fred Karpf of the Library of Congress in preparing this article.

formerly of the Brookings Institution, for example," said the commissar, baiting the trap. "He points out in his book, *The Government and Administration of Germany*, that the long arm of the law has got to be shortened to the quick stiletto of the bureaucrat. Of course, Blachley doesn't put it that way. He tells how in Germany judicial review of administrative acts was eliminated for a more practical, rational and democratic relationship. Now a lot of pessimists believe Blachley is right, but that we cannot do anything about it in this country because we are stuck with a Constitution and with a tradition under which the courts stick their noses into what an administrative official does and stop him if he does not go through all the rigmarole set out in the Constitution.

Reasonable and right

"Well, I have good news for those pessimists. You cannot amend the Constitution without submitting the amendment to the people. But the Supreme Court can advance its standards of what is reasonable and right under the Constitution.

"Today we are activists. Our ancestors didn't like administrative investigators breaking into a man's home without a warrant, or locking him up without a trial. But today we are more enlightened—we know

these are more speedy and economical methods of ascertaining facts for the government.

"The courts are getting wise to the fact that in order to shorten the time lag between a governmental command and its obedience, we must reassess our concepts about due process. How can this be done? By *administrative law*. From 1914 on, our legal code was gradually split into two parts: ordinary law, coming under court jurisdiction and thus observing the letter and the spirit of the Bill of Rights; and administrative law, enforced by administrative commissions, agents, deputies, inspectors and other officials. These can bypass Constitutional stumbling blocks. But somewhere in this smooth-running machinery of administrative law a cog slipped and the public (which relies on government to protect it from everything) suddenly finds hanky panky, payola and phony quiz shows in its own parlor."

"Maybe administrators need more power," suggested the editor.

"Strangely enough," said the commissar, "the top bureaucrats who would wield this power want no part of it. At least Earl Kintner, Chairman of the Federal Trade Commission, observed, 'Why can't responsibility and law enforcement be delegated to government? It could be if you want to pay for a Gestapo. The public would be completely protected and nothing

would be stolen, but our system of government and our freedom.'

"But who cares if Kintner doesn't want to be censor of TV? Do you care because some bureaucrats can burst into your home or lock you up without a warrant? You didn't know? Of course not. These things never happened to you—you're like me—first things first. I want butter—not due process."

The commissar turned to Rudy. "Just put a dish with eight pats right in the middle of the table—and don't talk about cholesterol."

Coffee and cream

The commissar smirked at the editor and filled his empty coffee cup half full of cream. "This," he said looking Rudy in the eye, "is to keep you from taking up all the room with coffee—I like a little coffee in my cream."

"Cholesterol," muttered Rudy as he walked away.

The commissar: "I can't help feeling he is honestly concerned my arteries will get clogged. But Rudy does have one fault common to most refugees who escaped from foreign tyranny. Before World War II Rudy was a Gauleiter. He didn't flee Hitler's Germany because he was persecuted—he fled because *he* would not persecute. Anyone will leave his homeland if his life is in danger. But watch out for those crazy nuts who come over

here because their principles are in danger. They not only know the Bill of Rights by heart, but most of them can recite the second verse of the Star Spangled Banner.

"We natives are like the rich by inheritance. We live in the lap of luxury but think money vulgar. We accept the liberty our ancestors earned, but it bores the hell out of us.

"Liberty and free enterprise interest only people who have nothing. We, the affluent society, have everything. Tyranny is all the mode today. You laugh, Mr. Editor? Don't laugh. Liberty is not stylish. It went out with lace collars, snuff boxes and Patrick Henry.

"But to get back to Rudy—when Rudy and his wife first came over here (before Emmaline was born) he had a corner grocery. They were called mama-papa stores in those days. Then the chains came along and things were really tough for the mama-papas. Rudy could stock his shelves cheaper by crossing the street to the A & P than by going to his own wholesaler. But he lasted long enough to see the anti Dog Eat Dog and Equal Opportunity Laws (generally referred to as the Anti-discrimination Act) pass. His adopted country had said it was wrong for him to seek the same price advantages as big chain stores by joining other small grocers in buying, so he obeyed the implied command and closed his

shop. He decided the only way to be safe was to be little. He became a waiter. He has been here ever since.

"His wife's dead, but he's got Emmaline. Maybe you wouldn't think Emmaline much as daughters go—she's a spastic, but smart, intelligent, sensitive. And proud of her home—calls it her castle and her old man The Dean."

Rudy and liberty

The editor looked at his watch. He would try to get the commissar back on the track, delicately if possible. "You were saying that liberty is not stylish?"

"That's right, Rudy and liberty. I'm glad you got my point. What's going to happen to all of us when dear Old Uncle Bureaucracy protects us from hanky panky in TV, radio, billboards, newspapers, periodicals and, let's see—doesn't deception abide nearly everywhere?"

The commissar motioned to Rudy. "More syrup, please—and my friend the editor here wants to know how does that stuff go in the Constitution—about freedom of the press?"

Rudy brought the syrup and assumed a pedagogical stance: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people to assemble peace-

fully, and to petition the government for a redress of their grievances. The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated."

"No, no, that's enough," the commissar broke in. "Rudy, you are an unloader. I ask a simple question and you dump the whole Constitution in my lap."

A busboy motioned to Rudy. "Paul wants you," he said.

A startled look came over Rudy's face. He hastened over. A spirited colloquy took place. Finally Paul, the headwaiter, shook his head and walked away. Rudy brought a plug-in phone to the commissar's table. "Emmaline's in trouble—the Gestapo is at our house (when Rudy got excited he dropped into his vernacular). Paul says it won't do any good for me to go home—would you talk to Emmaline? She knows you. Maybe. . ." Rudy's voice trailed off in despair.

"Emmaline? This is the commissar. Stop crying and tell me what's the matter. There is a man pounding on your front door? Why don't you wheel your chair over to the window and ask what he wants? Oh, you did, and what? Says he is a sanitation inspector? Says he'll take you to jail unless—what's that? Now listen Emmaline, listen carefully and do what I say. Wheel your chair over to the window,

open it and distinctly tell him to go to—wait a minute.” The commissar put his hand over the mouthpiece. “She’s in tears, there’s no use telling her anything.

“Emmaline, hang up and stay where you are. We’ll call the police—what’s that? You already did? They are there now—and half the neighborhood, too. You talked to the police out the window? What? They said they couldn’t stop him? He is an administrative official? He can enter anybody’s home—doesn’t need a warrant or anything? Emmaline, don’t do a thing. I’ll call you back in a minute.”

On the spot

The commissar knew he was on the spot. The Supreme Court* had said administrative officers in such matters needn’t bother about warrants.

No matter how plain the facts, he knew a bad decision supporting a good administrator would henceforth attract evil men to use it for evil ends. The vengeance of spiteful neighbors (poor, poor Emmaline), the opportunities for venality and even outright corruption were opened wide by the Court’s decision that petty government officials need no longer persuade an impartial judicial officer prior to forceful entry into a private home; as long as they were administrative

officials, not policemen, the Bill of Rights didn’t count.

With Rudy’s idol of American liberty shattered and the wreckage toppled on his beloved Emmaline, sympathy would have been fatal. This was no time for half-measures.

The commissar turned on Rudy. “It’s all your fault. I’ll bet some of your neighbors don’t like you, so they strike at you through your daughter. Nowadays a man can’t be too careful. A phone call from an enemy and bingo! There’s an administrative deputy banging at your door, searching your house—or maybe hauling you off to headquarters for a little secret interrogation about fires in the neighborhood.”†

It worked. Rudy straightened up. “I am poor—I am only a waiter. My house is old, but I keep it clean inside. As for fires, I dare anybody to accuse me of anything to my face.”

“But Rudy, you don’t understand. Under administrative law nobody has to say anything to your face. Nobody has to appear publicly before a judge and swear out a warrant against you. Just a whisper in the ear, places ‘the liberty of every man in the hands of every petty officer.’”‡

A puzzled look came over Rudy’s face. “That isn’t what I

* *Frank vs. Maryland*

† *Re: Groban, 77 Supreme Court 510*

‡ *Ibid*

learned in my naturalization course."

"Rudy, listen. Remember when you were in Hitler's Germany before you got fed up with the Nazis?"

"Please, commissar, don't bring up those unhappy days."

"No, no, Rudy. I'm only trying to make you understand. Do you remember, Germany had two systems of law, the Ordinary and the Administrative. Right? The *Amstgericht* courts operated under the Ordinary Law and followed legal proceedings, didn't they?" Rudy nodded. "But when a *Schutzstaffel* or Gestapo knocked on somebody's door, didn't the courts look the other way and say the code didn't apply when the *Schutzstaffel* were just making an administrative investigation of incidents damaging to the economy or to the health of the state?"

The commissar looked at the editor who, very red in the face, was making funny noises with his throat. "Please excuse me. I must leave the room. I'm getting sick."

The commissar leaned forward. "Stay and be sick here. I know what's the matter with you. You are sick because a poor, paraplegic, innocent child is being unmercifully abused and disgraced in front of her spiteful neighbors.

"You are not sick because the Bill of Rights has been flaunted in the face of 10,000 businessmen. You are not sick because under administrative law the presumption of guilt stands against those who are charged with selling for less. You are not sick because prosecutors sit as judges on their own cases. You are not sick because evil means, which are not countenanced by courts under the criminal law, are countenanced under administrative law. This was the way it was in Nazi Germany when Hitler took over. And now, if you will believe me, in the United States—oh, by the way, Mr. Editor, you wanted me to do 2,000 words. . . shall I?"

The editor looked at the commissar. "Before I answer, tell me, when did Blachley recommend we adopt the German philosophy that courts should not hold administrative officials accountable under our Bill of Rights?"

The commissar laughed. "Blachley made those recommendations just before Hitler used those very provisions to take over the Third Reich. Now shall I do 2,000 words on how we should increase the powers of administrative law?"

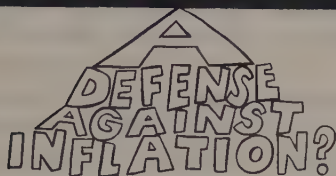
"Go to blazes!" replied the editor as he left the room.* ■

* The editor changed his mind

Wall Street Conversation

THE WALL STREET AREA of New York City has 120,000 telephones and 25,000 private lines which handle an average of five million calls a day.

The Balanced Budget:



by William S. Vickrey

■ CURRENT DISCUSSION about a balanced federal budget centers on the effects of such a budget on inflation. It is tempting to talk and act as though a balanced budget could of itself insure long-run price stability.

But the balance or imbalance of the federal budget is only one of the two major tools by which general economic development can be controlled—the other one being the supply of money. A third possibility, rationing and direct controls, is likely to be used only in an emergency and can therefore be ignored for the present. Some form of monetary control, on the other hand, is likely to be involved in almost every situation.

By itself, the mere existence of a balanced budget does not even imply a firm government commitment to price stability. An economically sovereign country can steer a mid-

dle course between inflation and unemployment just as effectively by combining a tighter money policy with a *larger* budgetary deficit (or smaller surplus) as it can with an easier money policy and a smaller deficit. A wide range of policy combinations can result in the same balance between over-all inflationary and deflationary tendencies.

While such varied policies may affect inflation equally, their impact on the nature and rate of economic growth can be quite different. Cheap money and a budget surplus tend to encourage private investment, while tight money, high interest rates, and a budget deficit tend to restrain private investment, particularly in housing, automation and other "capital-deepening" areas where demand is sensitive to capital costs. Resources diverted from investment by tight-money policies may flow into in-

creased current consumption, "capital-widening" investment needed to take care of this increased consumption, or increased government outlays.

Of course, a great deal would also depend on how the government disposes of the resources thus made available. If most of these resources go into increased government investment in productive capital, or into permanent improvements such as parks and schools, neither economic progress nor aggregate capital formation need suffer. But if these resources are devoted mainly to increased private consumption, induced by lower taxes, or to current government expenditures, the result may well be a higher *current* standard of living at the expense of less ultimate economic progress.

Convenient bench mark

In such a situation, a government deficit for current expenditures is, in a very real sense, "borrowing from the future," since the effect is to eat up in current consumption some of the social heritage which might otherwise have been transmitted to future generations.

In all of this, a "balanced budget," as the phrase is commonly used, has no special virtue except as a convenient bench mark or rallying point. For example, during most of the 1930s individual savings tended to outrun private in-

vestment even at the lowest interest rates attainable through monetary expansion. In such a case, a balanced budget may be incompatible with full employment. On the other hand, if voluntary savings are low, a balanced budget might create either an intolerably slow rate of economic growth or an undesirably heavy direct government involvement in capital formation.

There may be some virtue to a balanced budget in which current revenues and expenditures are balanced and net government investment is financed by borrowing. In such a situation, total investment in the economy is correlated with total individual savings and, in this way, the consumer would enjoy some sort of sovereignty over the allocation of resources.

But in practice this relationship is so remote and so doubtful as a fundamental value that few people would attach much weight to it. Even if it were acceptable as a principle, its practical application would depend on the arbitrary allocation of government expenditures to current and capital account, and on equally arbitrary depreciation and obsolescence charges for such items as the General Post Office, the DEW radar system or the White House.

Even a nominally balanced budget may vary widely in its inflationary impact. For example, if the New York State Thruway had been

built as part of the federal interstate highway system instead of as a self-liquidating toll project, the immediate inflationary impact of construction outlays would have been no greater, but the budget deficit would have been larger.

Similarly, outlays for a new post office building may have only a slight inflationary impact if the prospective availability of the current post office premises causes builders to defer other construction projects in the area. On the other hand, outlays for a new military post do not substitute for private expenditures that would otherwise have occurred, but often induce additional private investment in ancillary stores and service establishments in the vicinity.

And again, government-guaranteed bank loans for such purposes as home improvement may leave relatively little trace in the budget. But they may be just as inflationary as a program under which the government makes the loans directly and enters the amounts as budget expenditures.

Inflationary impact

Often a government project or program may allow a choice between government purchase or construction of the necessary capital or equipment, and leasing or purchasing arrangements financed by private capital investment. The inflationary impact of the two ap-

proaches may, in fact, be quite similar. But under a budgetary system which makes little or no distinction between outlays on current or capital accounts, the effect on the budget may *appear* different. Indeed, excessive concern with budgetary "appearances" may often lead to the adoption of less efficient leasing arrangements merely for the sake of a better showing in the nominal budget.

On the revenue side, taxes also vary in their deflationary impact on the price level. Increases in estate and gift tax rates, for example, may have little immediate deflationary effect because the impact of such taxes on the individual expenditures is likely to be spread out over a number of years, rather than concentrated in the years in which the revenue is received.

Much is often made of the idea that taxes on top-bracket incomes have a less deflationary effect than corresponding taxes on lower incomes, since higher-income persons tend to pay their taxes by reducing their savings rather than by reducing their consumption. Altering the progressiveness of the tax structure, however, would have a negligible effect on over-all income tax revenues.

For example, in 1953 the amount of revenue that would have been lost by reducing all income tax rates higher than 22.2 per cent to

that figure is only \$4 billion—out of a total individual income tax yield of \$29 billion. Even the most drastic change imaginable in the current tax structure, such as replacing the graduated rate by a single rate of 26.7 per cent applicable to all income above exemptions, would raise approximately the same revenues as the present system. Yet, as far as an anti-inflationary impact is concerned, a change to this uniform rate would be as deflationary as a net revenue increase of almost \$1 billion.

The anti-inflationary impact of taxation, however, affects not only consumption, but also investment. Here confusion often arises because investment is thought of primarily as a means of increasing the supply of goods by increasing productive capacity and thus averting a price increase. But this increase in capacity takes time to become effective. Thus, the more immediate effect of increased investment is a greater demand for the goods and services for which the investment was made. The sale of these goods and services in turn increases income, and so increases demand, in a manner that may, even in the long run, outpace the increased productive capacity. Therefore, at least in the short run, and possibly over a longer period, any influence leading to increased investment must be regarded as an inflationary influence.

Taxes on corporation income and property impinge most directly on investment. Theoretically, with free capital markets, it should make no difference whether a tax is nominally levied on the business producing the income or on the individual receiving it. In practice, however, the general level of interest rates is somewhat resistant to change, and the effects of increased corporation taxes cannot be fully offset by a corresponding reduction in taxes on the profits and dividends received by individuals.

Transitory effect

Changes in corporate income tax structures are thus likely to have a particularly direct effect on investment. But here it is important to note that while a sudden increase in the corporate income tax may cause a sharp cutback in investment, and thus have a fairly strong short-run anti-inflationary effect, this effect is likely to be transitory. If this deflationary effect does not trigger a recession, the reduced investment level will probably lead, sooner or later, to a shortage of capital relative to output. This in turn will raise the price of capital and thus negate the anti-inflationary impact of the tax hike. The pent-up demand for plant expansion will then return almost as strong as before the tax was raised. Raising the tax is like raising a dam without

changing the flow into the reservoir; after a pause, during which the reservoir fills to the new height, the overflow resumes at the former rate.

As an anti-inflation measure, then, the corporation income tax is, in a sense, habit forming. When the initial dose loses its potency, rates must be maintained merely to avoid an inflationary splurge. In fact, any sudden reduction of corporate income taxes is likely to produce rather severe inflationary "withdrawal symptoms" unless counterbalanced by a stringent monetary policy or a drastic increase in other forms of taxation.

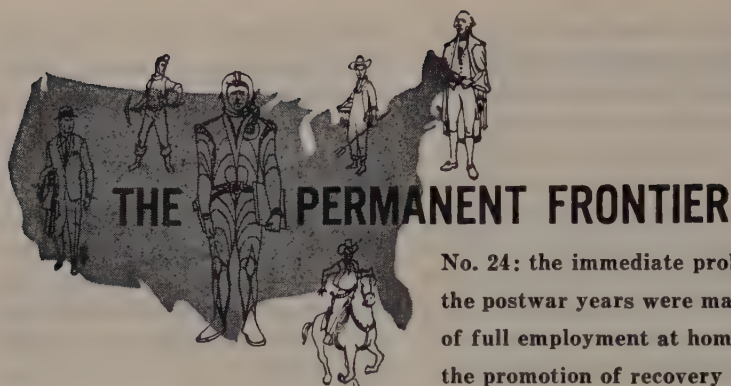
The anti-inflationary effect of profits taxes depends neither on the revenue actually produced or on the rates in effect, but rather on what investors think the rates are going to be for a considerable period in the future. A statement by the Administration that it intended to raise corporate income taxes

might thus have a substantial anti-inflationary effect in and of itself, if sufficiently believed in, even though the intention is never carried out. Conversely, the persistent hope during 1946-49 that profits taxes would recede to prewar levels may have contributed to the strong demand for investment goods and services and the resulting inflationary pressures that occurred during this period.

Thus we see that the inflationary or deflationary effect of a budget depends very markedly on the makeup of both the revenues and the expenditures; it cannot be inferred from a mere surplus or deficit figure. And while a surplus may, under favorable conditions, induce greater private investment and more rapid economic growth, failure by private investors to respond to the challenge and take up the slack could result in depression and unemployment, rather than growth. ■

Taking Census

IN THE COURSE of the 1960 census, some 50 million sheets of paper will be used by census takers to collect information on approximately 180 million Americans. The job of processing this information will be performed by computers. Each 14- by 16-inch worksheet turned in by the census takers will be reduced on microfilm to one square inch. Some 950 miles of microfilm will then be run through a FOSDIC (Film Optical Sensing Device for Input to Computers) which will "read" information on the microfilm and transfer it to magnetic tape. Electronic computers will be fed "programs" enabling them to extract the various types of information wanted from the taped records. This information will come out of the computers on a special tape that can be run through high-speed printers with an output of 600 lines of statistical tables per minute.



No. 24: the immediate problems of the postwar years were maintenance of full employment at home and the promotion of recovery abroad

■ THE UNITED STATES prepared for the era beyond World War II fully aware of the grievous economic errors that had been committed during the postwar period following World War I. Consequently, in spite of international uncertainties, postponed domestic conflicts, and complex and rapidly changing events, we managed a significantly better adjustment the second time.

Plans for a peacetime economy were being made well before the end of hostilities. As early as June, 1944, the War Production Board (WPB) was ready with a reconversion program. A Presidential order during the summer of 1945 stated the goal of "orderly modification of wartime controls over prices, wages, materials and facilities. . . (with) . . . continued stabilization of the national economy during the transition." Within a few months, controls were elimi-

nated on manpower and commercial vehicle use, rationing was dropped for all consumer items but sugar, and many price controls were removed. A few priority and allocation controls, some of which are still in effect, were retained on raw materials, housing and exports.

Generally, these actions promoted an orderly transition to peacetime uses of resources. But the process was upset by the conflict over continuation of price controls. The public was sick of controls and had little understanding of the real issues involved. Labor unions chafed at wage controls, and businessmen were unhappy about price and credit controls. The ever latent income distribution battle was resumed with a wave of 4,700

This is the 24th article of a series in CHALLENGE which deals with the history and development of the United States economy.

strikes in 1946, involving more than four million workers. Finally, as a result of increasing public opposition to price controls, the OPA was officially dissolved in the fall of 1946.

Wages and prices immediately began to climb upward. The wholesale price index, which had been held to a 16 per cent increase through the war and after, increased almost 33 per cent in the nine months following the end of controls. Retail prices rose more than 17 per cent during the same brief period. Yet, during most of the postwar period until 1950, gross national product and per capita disposable income—both judged in price-corrected real terms—actually *declined*. After the initial spurts in price indexes which resulted from pent-up wartime demand, the inflationary spiral slowed. Thereafter the economy was marked by “creeping inflation” and a high employment rate.

Experiences during the depression years of the 1930s and the wartime period of full employment which followed, led to the passage of the Employment Act of 1946. This Act, though restricted to a statement of intentions and the creation of purely advisory agencies, pledged the federal government “to maintain employment, production and purchasing power.”

Ironically, government commitments to full employment became

an open invitation for various groups to advance their economic interests by passing on their rising costs in the form of higher prices. The market power of the big steel and automobile corporations, for instance, allowed them to shift the cost increases resulting from union demands for higher wages onto weaker industries and the general public. The net effect of this inflationary process on the economy’s efficiency and rate of growth is still under debate.

Inflationary tendencies were heightened during the postwar 1940s by a growing U.S. involvement in international affairs. The government began planning and negotiating for a viable postwar economy fairly early in World War II. There was a United Nations conference on postwar food and agricultural problems in early 1943. A relief and rehabilitation organization (UNRRA) was in operation by the end of that year. In 1944 proposals were made for establishing the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD).

Many observers concluded, from a remarkably easy immediate transition, that wise foresight had proven entirely adequate to the task of international recovery. But events from 1947 on demolished all hopes for a rapid return to normalcy. For the rest of the decade

and beyond, "normalcy" consisted of recurrent international economic crises.

Rising expectations

The U.S. could not hope to escape these crises by withdrawing into a private world of domestic problems. This country had emerged from the war with three-quarters of the world's invested capital and two-thirds of its industry. At the same time we had only one-sixteenth of the earth's population. Obviously, this lopsided balance of power could not continue in the face of the "revolution of rising expectations" which had occurred in underdeveloped areas throughout the world. And in the disrupted economies of Western Europe a return to pre-war living standards was imperative if political chaos was to be avoided.

Our early postwar actions were, in general, responsible and appropriate as far as they went. Our extensive role in providing immediate relief as well as credit facilities abroad was well conceived. And long-range plans for an orderly world economy were provided through the workings of the International Bank, the Monetary Fund and a proposed trade organization. The critical gap turned out to be the relatively neglected issue of intermediate term recovery.

Western Europe, as the leading commercial-industrial complex out-

side the U.S., was the key to a recovery of world production and trade. Its encouraging revival in 1946 had been a false dawn, made possible by a depletion of financial and resource reserves which could not be repeated. Now larger populations clamored for full employment guarantees and overdue welfare programs. Efforts to meet these demands enhanced the war-bred inflations and prevented governments from channeling funds into other vital areas. Inflation in the U.S. and Latin America increased the cost of raw materials and equipment essential to European recovery. Shipping fleets which had not been destroyed were in run-down condition. Moreover, overseas investments and incomes from colonies were slipping away.

Initial rumblings of the Cold War complicated the situation further. The British had to retrench their widespread and costly overseas military commitments. In 1947, two extensive U.S. foreign aid plans were enunciated—the Truman Doctrine appealing for military aid for Greece and Turkey, and the more broadly based vision of the Marshall Plan for European recovery. With these plans we explicitly embraced intermediate-range economic aid as a tool of foreign policy. All in all, we committed ourselves to an eventual \$11 billion in aid in the six-year period between 1948 and 1952.

The scope of this approach was unparalleled in history. In Western Europe our aid was clearly crucial in preventing economic and political turmoil and successful in promoting recovery. Although progress was laborious, full recovery lay in sight. Unfortunately, Cold War suspicions caused the Soviet satellite nations of Eastern Europe to refuse participation in the Marshall Plan program. As a result, continental trade and development was split for the foreseeable future.

Joint programing

The economies of Western Europe began a highly significant process of liberalization for long-range economic recovery. A degree of joint programing was achieved through the Organization for European Economic Cooperation (OEEC). This move toward greater regional integration was given greater impetus by the formation of the European Coal and Steel Community, the Benelux Customs Union, and the North Atlantic Treaty Organization. The dynamism of mass markets and increasing productivity, bred of American experience, began to undercut the traditional stagnant cartelization of Europe's capitalism.

The underdeveloped countries received aid less directly and far less liberally. Nor did they attract much of the reviving flow of private investment except where there

was oil or some similarly strategic resource. Hopes for a bold new program against poverty, ignorance and disease had been aroused by the Point Four of Truman's 1949 inaugural message. Appropriations, however, began as a minor trickle, and the program was restricted to technical assistance without capital funds.

The acceptance of international responsibilities for an indefinite future outlined more strongly certain dominant features of the American economy. National security expenditures banished hope for reducing federal budgets or diminishing inflationary pressures. On the domestic front, the war had left a legacy of deferred welfare programs. These were compounded by a booming population with greatly expanding demands. A bold but inadequate start was made on housing and urban renewal in 1949. Earlier there had been the GI Bill for educational and enterprise loans to war veterans. But many domestic projects were stillborn. With construction costs doubled, the dollar volume of federal public works barely exceeded the 1940 figure. State and local governments, meanwhile, spent ever-larger sums in an unavailing effort to handle the strains of urban and suburban growth. Regulatory powers grew at all levels of government.

Economic life became still more institutionalized as shares in the

continuing prosperity went increasingly to big or politically powerful units. Large corporations with vast sums of undistributed profits expanded their own welfare programs and enlarged their empires through greater use of internal financing. Trade unions likewise evolved into giant enterprises with billions in pension and welfare funds. The huge sums collected into company and union funds, along with such institutional investors as insurance companies, banks, investment trusts and finance companies, became the predominant sources for outside venture capital.

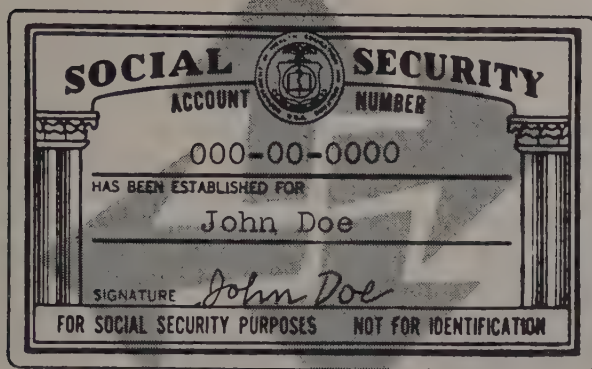
As traditional competitive market forces declined, big firms rivaled big firms, big government arbitrated between them and big unions kept them in order. Less powerful organizations tried more indirect means of aggrandizement. Farmers, for example, continued their reliance on government aid programs. Consumers and small business found their interests somewhat furthered by federal regulatory agencies.

Unorganized groups such as small farmers, the aged and disabled, unskilled and nonunion workers had the least share in the general prosperity. In 1948 nearly 10 million American families still lived on less than the minimally decent \$2,000 a year.

In the years that followed, continued economic growth and varied frontiers of opportunity were able to reduce the *quantity* of material poverty. But new doubts were arising as to the *quality* of life provided by our national production patterns. For example, free consumer sovereignty, by allocating \$8 billion a year to liquor and only \$5 billion to public education, was hardly maintaining an optimum balance of expenditures. Unfortunately, in a world in which America was necessarily a key power, such choices were not merely a matter of private domestic concern. For better or for worse, we had to recognize that much of the future course of Western Civilization would depend on how we used our resource abundance. ■

NEXT MONTH: the economy since the Korean war

Social security



WHERE
IS
THE
PROGRAM
HEADED?

by the editors of Challenge

■ THE SOCIAL SECURITY SYSTEM, born 25 years ago amid charges of "socialism" and "robbing the people," is now an almost universally accepted part of the American economic system. During the 1936 election campaign, the Republican candidate, Governor Landon of Kansas, vehemently opposed the social security program. The future of the fledgling system was in grave doubt in the event of a Republican victory.

The 1936 campaign was the last time that social security was an important issue between the two major political parties. Since that time, legislators of both camps have vied with each other to take election year credit for expanding the system. In fact, each extension

of social security to new groups has been passed by overwhelming majorities in both Houses of Congress.

The principal controversy surrounding the system today is not political; it is the question of actuarial soundness. Is the present structure of the fund geared to pay benefits to the ever-increasing proportion of the population in the over-65 age bracket?

Both critics and defenders of the existing structure of the social security fund agree that current tax rates will not be sufficient to cover the increased demands that will be placed on the fund during the next 20 years. It is estimated that the number of people, aged 65 or over, will increase from 15.7 million to

24.5 million (or by more than one-half) during the next 20 years—making it the fastest-growing age group in the population.

But while the number of beneficiaries will increase sharply, the size of payments into the fund is not expected to increase nearly as fast. New entries into the labor force still reflect the low birth rate of the depression years. And even when, during the next decade, the postwar babies reach working age, an increasing proportion can be expected to delay entry into the labor force in order to complete their education. The net result: for the next decade, at any rate, social security payments will increase faster than income. In fact, payments have exceeded income since 1957, although the trustees of the social security fund predict that this net drain on the fund (which last year alone came to more than \$1 billion) will cease by 1961.

Rates and payments

If true, this will be so only because higher tax rates will compensate for higher payments. Originally set at one per cent on the first \$3,000 of wages, social security taxes are currently three per cent on the first \$4,800 of wages, and are scheduled to increase up to a maximum of four and one-half per cent by 1969. Considering that the tax rates themselves began to be increased only since 1950, the

scheduled "maximum" must be regarded with a good deal of skepticism.

The question at issue here is not the solvency of the fund—at least not in the short run. Congress can always raise the rates or raise the maximum amount of income taxed if the need arose. As long as such increases are kept within "reasonable" bounds, it is likely that Congress would pass such legislation, since the social security system enjoys the support of the vast majority of voters.

The real economic problem posed by social security is that unlike private insurance systems it must necessarily be administered on the basis of extremely imperfect knowledge of future income and payments. The *rate* of tax and benefit payments is, of course, determined by Congress—and not solely in terms of actuarial criteria. And the actual *value* of payments and benefits depends on general economic conditions. Unlike a private insurance policy, there is no way for a participant in the social security program to tell how much he will have to pay to get a certain benefit. In fact, there is no *predictable* ratio between payments and benefits.

The trustees of the fund must, therefore, manage their income on the basis of extremely imperfect knowledge of future income and outgo. This uncertainty is com-

pounded by the fact that the fund's income must, by law, be exclusively invested in government securities. But the earnings on government securities are, to a large extent, determined by the government's debt and fiscal policies, which can change erratically. In either case, payments, benefits and income are determined by external agencies, not by automatic actuarial ratios built into the system.

Actuarial projections

The fact of the matter is that actuarial projections are so contingent on general economic conditions and subject to so many political pressures that nobody can safely predict what the financial status of the fund will be 10 years from now, let alone 40 years. Projections made by the trustees of the fund clearly illustrate this. According to its "high-cost estimate," the value of the fund will have appreciated to almost \$1 trillion by the year 2000. Its "low-cost estimate," on the other hand, envisions a completely exhausted fund by 1999. These are, of course, extreme projections. The trustees' "intermediate estimate" envisions a doubling of the fund during the next 50 years. The fact that such estimates conceive possibilities, ranging from default to \$1 trillion, illustrates the extreme tenuousness of actuarial projections in social security.

Since this uncertainty is an inevitable part of our social security system, and since the social security system is here to stay, the main problem is to find ways of enabling the trustees of the fund to administer it rationally in spite of these uncertainties.

Nobody can foresee the precise nature of future demands that may be placed on the fund. Not only is it likely that benefit payments will go up, but the very nature of benefits will probably be expanded. Already there have been a number of proposals for including medical benefits for the aged under the social security system. While there has been no concrete action thus far, a provision for some sort of medical benefits seems inevitable—in spite of the vehement opposition of the American Medical Association. Even the Administration, which was opposed to the Democratic-sponsored Forand Bill at the last session of Congress, is moving in this direction. President Eisenhower recently announced that the Administration was studying a plan to include medical benefits in social security, to be offset by a .25 per cent addition to the present tax rate.

How can the trustees find additional sources of revenue which Congress might be willing to tap? Tax increases beyond the four and one-half per cent limit envisaged by 1969 will be increasingly diffi-

cult to impose—and will have an increasingly depressing effect on the general level of consumption. And while it is likely that the maximum taxable salary will eventually be increased beyond the current \$4,800 per annum, the political and economic feasibility of continuously raising the salary ceiling at a much faster rate than the general wage level is limited.

Thus it will be extremely important for the future solvency of the fund that a way be found of increasing the yield on the assets held by it at any one time. In a private insurance fund, this would be largely a technical matter; in the case of social security, the problem is largely political. No responsible economist would suggest that the law which restricts the fund's investments to interest-bearing obligations of the U.S. should be changed. The idea of a federal government fund investing directly in private corporations or in state and municipal bonds smacks of fascism, or worse.

High-yielding obligations

The real problem is to find ways of investing the fund's assets in *high-yielding* U.S. government obligations. Under the present law, the Treasury issues special securities specifically designed for purchase by the social security fund. These special issues bear interest at a rate equal to the average rate

being paid on all long-term (that is, over five years) government securities. Unfortunately, this "average" is always much less than that prevailing in the open market for government securities. In other words, the fund's investments are earning less than government securities in the open U.S. bond market.

The reason for this anomalous situation points to a basic political problem that stands in the way of a more rational management of the fund's resources. Under the present law, the Secretary of the Treasury is also the managing trustee of the social security fund. This is essentially a conflict of interest, for the same man cannot represent the best interests of buyer and seller. As Secretary of the Treasury, he should be trying to finance the government debt (that is, sell) at the lowest possible interest rate. And as managing trustee of the fund, he should be trying to get (that is, buy) the highest possible return on the fund's assets.

The other trustees—the Secretary of Labor, the Secretary of Health, Education and Welfare, and the Commissioner of social security—have some voice in the fund's management, but the dominant voice is still that of the managing trustee. It is inconceivable that he can invest such a large portion of the fund's assets in the low-paying issues without taking into account

the Treasury's debt-management problems, which are, to a considerable extent, alleviated by this ready source of capital at low interest rates.

But even if the fund's administration were more sharply isolated from Treasury influence, there would still be political problems for the fund. The very fact that the fund can be invested only in government securities means that Treasury debt managers would always be tempted to look upon it as a dumping ground for low-interest-bearing issues. But overlapping administration does make this kind of dumping more probable.

Manifold and unpredictable

We can see that the problems of the future stability of the Old-Age and Survivors Insurance Trust Fund are manifold and, in many cases, unpredictable. Social security will never be run like a private insurance system. But this is not, as some critics of social security would have us believe, a damning criticism of the whole concept of government insurance. Social se-

curity does provide about 12 million Americans with a minimum of security. It does induce a form of enforced saving among low-income groups who would otherwise be unable or unwilling to build a nest egg for their future. As a defense against extreme economic insecurity and poverty, social security plays an important role.

But, as we have tried to show in this article, it provides only a limited defense. Since the ratio between payments into and out of the fund is, in the final analysis, determined by Congress, by the Treasury and, only to a limited extent by the actuaries, nobody really knows what the financial situation of the fund will be in the future. Taxes, benefit payments and benefits can and will change as officials play it by ear, so to speak. But the trustees of the fund, the taxpayer and the future beneficiaries do not know how and in what way it will change. If the essence of security is to reduce the area of uncertainty about the future, the present social security system does not provide it. ■

Answers to Challenge Quiz

(see page 79)

- | | |
|-------------------------------|--------------------------------|
| (1) True <i>(see page 74)</i> | (6) False <i>(see page 27)</i> |
| (2) True <i>(see page 8)</i> | (7) False <i>(see page 16)</i> |
| (3) True <i>(see page 41)</i> | (8) False <i>(see page 47)</i> |
| (4) True <i>(see page 18)</i> | (9) True <i>(see page 56)</i> |
| (5) True <i>(see page 59)</i> | (10) True <i>(see page 70)</i> |

Urban renewal



PLANNING CITIES FOR A FREE SOCIETY

by Brent Friedlander

■ ALTHOUGH THE TERM "urban renewal" has become familiar to most readers of American newspapers, the reasons for and the results of this relatively new concept tend to remain rather vague.

Urban renewal, simply stated, is a systematic program designed to "rescue" cities from the rising tide of economic, social and mechanical problems peculiar to them in the 20th century. It can include slum clearance, housing construction and commercial rebuilding, as well as street relocation.

The postwar flight to the suburbs, first of people and then of business, leaves cities throughout the country with problems of commuter transportation, dwindling tax sources, falling property values, and a host of problems resulting from the influx of lower-income groups requiring expanded public services.

The usefulness of urban renewal in revitalizing the "central city" varies with the site and the situation involved. Imaginatively planned and skillfully executed urban renewal can lead to the development of attractive middle-income housing in the central city, restoration of blighted nonresidential areas near the central business district, replacement of residential slums by well-planned commercial facilities, the rehabilitation of deteriorating city housing, the establishment of new commercial

areas, and the improvement of vehicular access and business parking facilities.

Perhaps the best way to illustrate the benefits of an urban renewal program is to show how such a program has worked in a typical city. New Haven, Conn., once faced the same problem as many other central cities.

Fortunately, however, New Haven had a reasonably well-developed master plan, a small but experienced planning department and the beginnings of an urban renewal program. The election in 1954 of a mayor who recognized the potentials of proper planning and effective renewal programs marked the launching of one of the most successful urban renewal programs in the country.

Economic rehabilitation

The first project undertaken was slum clearance in the Oak Street area, southwest of the city's central business district. Here the city's worst residential slum has been replaced by the large office building of the Southern New England Telephone Co., modern retail shopping and parking facilities, and new middle-income apartments. The project also includes a new highway connecting the central business district with the Connecticut Turnpike.

In the economic rehabilitation of the city, however, the most impor-

tant project undertaken to date is the renewal of the central business district itself. In the Church Street area, dilapidated commercial facilities, obsolete offices and incompatible residential properties are being demolished to make way for a modern integrated shopping area. It is expected that this redevelopment of the city's central retail facilities, to include adequate parking space and access routes, will do much to restore New Haven's position as the hub of its metropolitan area.

Other cities throughout the nation are similarly using urban renewal programs to reverse, or at least slow, the exodus of income from the city. Pittsburgh's famous Golden Triangle, perhaps one of the most impressive results of largely private urban renewal in the country, reports that its program has brought new commercial and office users into the city and has significantly increased the city's tax roll.

But how did these urban renewal programs come into being? Title I of the Housing Act of 1949, and resulting state enabling legislation, gave municipalities the opportunity to acquire slum land at fair market value, demolish the buildings on it, improve grades, streets and utilities, and sell or lease the land for housing developers at its fair market value as cleared land. Two-thirds of the loss resulting from

such transactions is borne by the federal government, while the remaining one-third is borne by the municipality, which in some states may receive state help.

Additional proviso

In 1954 the concept of the program was broadened to include commercial redevelopment, and federal funds were made available for the rehabilitation of deteriorating areas as well as for the complete renewal of areas already designated as "slum."

Tied to this additional proviso, however, were requirements that all projects within the community should be related to an over-all plan for community conservation and development, and that no more than a specified percentage of these federal funds could be used for non-residential redevelopment of predominantly nonresidential areas. The last provision reflected a growing awareness that, if it were to succeed, urban renewal should include both commercial and housing renovations.

But what are the problems faced by a typical municipality contemplating an urban renewal program? Perhaps the gravest and most obvious of these is the growing emigration of middle- and upper-income families from the "central city" to the suburbs.

Dramatically illustrating this trend is New York City's 1.2 per

cent decrease in population during the same period when the entire metropolitan area showed a 9.2 per cent increase. The area exclusive of the city grew 25.5 per cent.

In many cities, however, this "flight to the suburbs" has been accompanied by an influx to the central city of lower-income groups. New York, for example, between 1950 and 1957, had a net population loss of some 211,223 brought about by the exodus to the suburbs of approximately 715,000 non-lower-income persons, and the influx to the central city of some 503,500 lower-income people.

The economic consequences of this trend are ominous. First, the resulting decline in personal income level can severely restrict a city's tax base. In 1939 per capita income of the New York central city was 35 per cent higher than the average for the metropolitan area. Today it is only six per cent higher.

Income level is up

During the same period, per capita income level of New York's suburban communities has improved from a point 12 per cent less than the area average to 11 per cent more than that average. At the same time, income level of the "exurban" communities has risen from 81 to 86 per cent of that of the entire metropolitan area.

Paralleling the central city's

loss of personal income is, in many cases, a loss of retail sales. Mushrooming suburban shopping centers throughout the nation are the natural result of the moving of merchandising facilities with the people they serve. Increased automobile ownership, new highway development and the availability of cheap land for adequate parking facilities have given suburban stores many advantages over older central city shopping areas plagued with traffic congestion, inadequate or expensive parking and structural obsolescence.

Underscoring this problem is the fact that since 1948, the New York central city has been losing approximately one per cent per year of its share of total retail sales of the metropolitan area. The figure now stands at 47.5 per cent.

While city tax sources have been shrinking, the demands made on the city are growing. Suburbanites who continue to work in the central city demand adequate commuter facilities, and the lower-income groups moving into the city require more welfare, school, police, health, fire protection and housing services.

Widespread trend

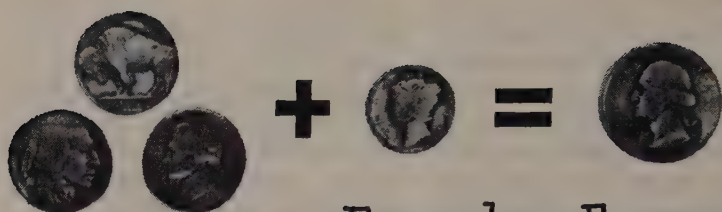
The economic problems of this over-all trend obviously do not affect all central cities to the same degree as New York. The trend, however, is widespread, and must

be reversed if U.S. urban centers are to remain economically sound.

Some cities see the urban renewal program as a means of doing this. As yet, however, there is no real indication that it offers an effective solution to the economic problems of central cities.

Many questions remain unanswered: Are the federal funds provided enough, or are they ever likely to be enough, to permit really comprehensive urban renewal? Can cities, even with federal and state aid, afford comprehensive renewal programs? Is the present system of land write-down enough to interest sufficient private capital, or are central city land values prohibitively inflated? Can enough middle- and upper-income families be induced to remain in or return to improved central cities? Is the central city, with its dense building pattern, obsolete in this automotive age? Can the central city's problems—economic, physical or social—be solved without the total integration of all communities within its metropolitan area in one metropolitan government?

With all these unanswered questions, however, urban renewal gives promise of providing at least a partial solution to the economic ills of the nation's urban centers. It can at least alleviate some critical slum problems; at most it may be the basis for restoring their physical and economic soundness.■



Everyday Economics

■ A TAXPAYER with an insurance claim still unsettled at tax time should make an estimate of what he expects to recover from the insurance company. The amount of loss above that sum is deductible on federal income tax returns. If it later turns out that his estimate was wrong, he then files an amended return and pays any additional tax due or files a claim for refund of the overpaid tax. If the taxpayer received cash or property from the Red Cross to help restore his damaged property, his casualty loss deduction is reduced by that amount. If Red Cross aid was in the form of food or medical supplies, they are not income and do not reduce casualty loss deduction.

Planning ahead



MOST Americans who plan to travel abroad this summer will pack a camera or two, and perhaps such items as portable radios and binoc-

ulars or opera glasses. If any of these items are of foreign make it is important to obtain a registration slip for them *before leaving the U.S.* from any U.S. customs office. The slip should be stamped by officials before leaving the U.S. or in the country of debarkation. Without a registration slip, the tourist will be required to pay duty on his equipment when he returns to the United States.

Attention, women veterans!



THE Veterans' Administration extends the same benefits to women veterans of World Wars I and II and the Korean war as to male veterans. More than 400,000 women, now in civilian life, are entitled to benefits ranging from help in getting business loans, home loans and mortgages, to social security credit and GI Bill education grants. The woman veteran should contact her nearest VA office to inquire about her eligibility for benefits.

Breaking a lease?



THE AMOUNT paid to the landlord to cancel the remaining term of a busi-

ness lease is fully deductible from federal tax in the year the amount is paid. If the taxpayer buys out the old tenant's lease (or pays the landlord to do so) so that he can move in, he may deduct the cost *but* must spread it out over the life of the lease he gets. A businessman who has cancelled a lease before he has fully recovered the costs of improvements through depreciation or amortization may deduct the remaining costs *in full* in the year the lease is cancelled.

Credit card reminder



EMPLOYEES who plan to claim a federal income tax deduction for

business expenses in excess of reimbursement by their employer must itemize all expenses charged to the employer either directly or indirectly through a credit card or other credit system. The employee is responsible for keeping records of expenses reimbursed by the employer, as employers are not required to furnish copies of such records for the employee's use. In previous years employees were not required to report credit card ex-

penses charged to employers, but the Internal Revenue Service reminds them that reports must be filed for expenses that were incurred during 1959.

Out of repair



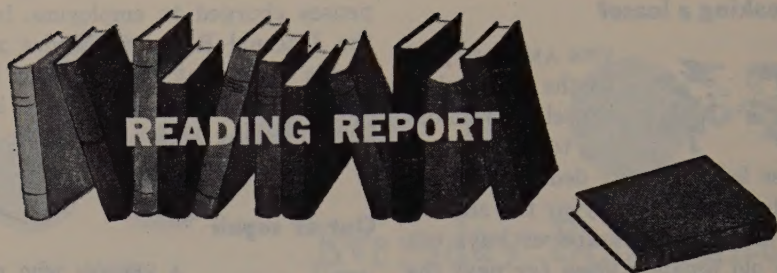
A PERSON who receives goods for repair (even if he does not claim to

be a professional repairman), guarantees that he is skillful in such work by the act of inducing the customer to try his services. If the goods are damaged because of his lack of skill, he is liable for the damage under the law of contracts.

Additional deductions



IN ADDITION to his cash contributions to charitable organizations, the taxpayer may deduct other contributions from his federal income tax return. If he attends a benefit performance of a play, the difference between the regular price of the seat and the higher amount he pays is deductible. Also deductible are: items given for sale in fund-raising bazaars; costs of food given to bazaars; expenses for white uniforms and shoes of volunteers in Red Cross work as well as their meals taken at the hospital.—S. T.



The Law and the Profits. C. Northcote Parkinson. 246 pp. Boston: Houghton Mifflin Co. \$3.50.

•Waving a banner boldly imprinted with the motto: "*Expenditure rises to meet income!*" (Parkinson's Second Law), the professor uses his caustic wit for an attack on the vexing problem of taxation. Governments, warns Parkinson, are as apt to increase expenditures to meet revenue as are individuals. This has been repeatedly demonstrated in the past, the most flagrant example being the ability of politicians to continue spending as much (if not more) after a war than during it. The end result is always the same, says Parkinson—a vast, disorganized administrative branch incompetently serving a nation that is progressively taxing itself to death. The solution: reduce total revenue drastically, cut the number of civil servants to a minimum, and the result will be better government and a more prosperous nation. Somewhere after the first chapter the reader will notice that his delight in the succession of humorous examples is beginning to reflect the Law of Diminishing Returns, and that some of the author's eternal verities seem increasingly open to challenge.

The Political Economy of National Security. James R. Schlesinger. 287 pp. New York: Frederick A. Praeger. \$5.00.

•Schlesinger has produced a thought-provoking dissent from the prevailing moralistic approach to foreign policy—the belief that U.S. foreign policy should be based on national interest rather than on some abstract conception of right and wrong. In this context, the author feels that we should cut our cold war commitments in "overexposed" areas which are not essential to our national security. Unfortunately, Schlesinger neglects the psychological effect of giving up "overexposed" areas on those regions we deem essential to hold.

As for defense, the author feels we should stop wringing our hands over the cost which is now only 10 per cent of gross national product—and could easily be more. A policy of defending the budget rather than the U.S. is, he believes, putting us in a dangerous position. We may be cutting our "conventional" forces to the point where a Soviet-sponsored "brush-fire" war leaves us the impossible choice between nuclear retaliation and ignominious retreat. ■



Challenge Quiz

HOW WELL can you do with this true-false quiz? Test your ability to increase your knowledge through reading. Ten correct answers is Excellent; 9, Good; 8, Average. If you do the quiz *before* reading the articles, 6 correct answers is good. Answers on page 71.

- (1) Federal funds for urban renewal may be used only for redevelopment of urban residential areas.
True ☐ False ☐
- (2) The recent Economic Report of the President found that one out of eight American homes is equipped with an air conditioner.
True ☐ False ☐
- (3) In Nigeria, per capita income is higher than in Pakistan or India.
True ☐ False ☐
- (4) The consumer pays less than one-third of the cost of newspaper and magazine production.
True ☐ False ☐
- (5) Taxes on top-bracket incomes have a less deflationary effect than taxes on lower incomes.
True ☐ False ☐
- (6) Since the Revolution, only 9,000 titles of foreign fiction have been translated into Russian.
True ☐ False ☐
- (7) Separation of powers between national unions and their locals is, at present, only in the proposal stage.
True ☐ False ☐
- (8) Defense plants were permitted rapid write-offs of depreciation costs during the five years immediately following World War II.
True ☐ False ☐
- (9) Under administrative law, American homes may be searched without a warrant.
True ☐ False ☐
- (10) The Secretary of the Treasury is the managing trustee of the Federal Old Age and Survivors Insurance Trust Fund.
True ☐ False ☐



Around the House: Portable room humidifier that vaporizes water at about one pint an hour. Unit holds two gallons and weighs only 21 pounds when filled. . . Wheel attachment for trash or incinerator cans adjusts to fit any size. Available in three- or four-wheel models, it consists of a plated steel "belt" with heavy-duty molded rubber casters. . . Carpenter's plane only three and one-half inches long permits fine finishing in close, small work. . . Light-weight hand pump for draining stopped-up sinks can also be used as a bilge pump for small boats, for transferring fuel from tank to tank or for inflating air mattresses, etc.

* * *

Home Gardener: Aluminum sun dial is preset at the factory for the latitude and longitude at which it will be used. It can be easily adjusted to daylight or standard time. . . Plastic oil gauge screws into the oil filler opening of lawn mowers making it possible to read oil level at all times. . . Bird feeder made of rigid polyethylene with a large seed container that dispenses seed into the tray as it is eaten. Drain holes in the tray keep seed from getting soggy.

* * *

In the Kitchen: Aluminum mesh filter lid for frying pans lets steam escape but stops grease spatter. . . One-piece dish drainer of molded polyethylene that eliminates need for a separate

drain tray. Unit holds 18 plates and has separate parts for cups, knives and silverware and side gutters to hold large platters.

* * *

For Sportsmen: Floating fish-buoy made of bright plastic keeps fish separated and at the proper depth on nonrotting rope. . . Silent minnow pail made of plastic makes no noise to scare fish away. Perforated inner container permits water to drain off when lifted, making it easier to get at the bait. . . For the outdoor cook, an electric unit combining toaster, broiler and grill, complete with temperature controls, that can be plugged into the cigarette lighter socket of an automobile.

* * *

Children's Corner: Child's boat made of polystyrene has outrigger floats to keep it from tipping over. It is extremely light and can be paddled by hand. . . Pedaltype automobile with five pedal locations so that the vehicle can be adjusted to fit children from 18 months to six years of age.

* * *

Dog's Day: Adjustable dog collar of vinyl-encased metal cable will fit any size neck from 11 to 13 inches. Thumb screw locks it at the adjusted size. Collar is waterproof and washable. . . Electrically heated doghouse made of galvanized steel and insulated with fiberglass; plugs into any outlet. A thermostat controls the heat. . . Animal resuscitator revives pet with oxygen applied through a plastic face-mask.

* * *

April Fool: Novelty clock that keeps perfect time although it runs backwards and has backward numerals.

* * *

Write to CHALLENGE magazine for additional information. ■